THE FOUNDRY

INDEX

TO

VOLUME LVIII

January-December, 1930

THE PENTON PUBLISHING CO.
Penton Building
Cleveland

605
v.58

Index—January-December, 1930

A

	Month	Page
A Foundry Budget Directs Operating and Sales Efforts	Nov. 15	53
Abrasive Material On Castings, Molds	Dec. 1	89
Absorption of Gases by Bronzes, Explains	Sept. 1	108
Abstracts		
From the World's Foundry Literature	Jan. 15	100
From the World's Foundry Literature	Feb. 15	107
From the World's Foundry Literature	March 15	113
From the World's Foundry Literature	April 15	86
From the World's Foundry Literature	May 15	85
From the World's Foundry Literature	June 15	79
From the World's Foundry Literature	July 15	85
From the World's Foundry Literature	Aug. 15	78
From the World's Foundry Literature	Sept. 15	79
From the World's Foundry Literature	Oct. 15	84
From the World's Foundry Literature	Nov. 15	75
From the World's Foundry Literature	Dec. 15	60
Acid		
Dip for Bronze Castings, Gives Constituents of	April 1	130
Electric Steel, Gives European Practice for Manufacture of	Feb. 1	100
Iron Pot Resists	Jan. 15	86
Proof Castings, Want	Jan. 1	108
Solubility of Various Cast Irons, Investigates	Jan. 15	100
Addition of Core Binder to Sand, Describes	Feb. 15	90
Additions, High Grade Cast Iron Produced by Large Steel Scrap	Jan. 1	112
Additions to Copper, Gives Effect of	Dec. 15	48
Advantages of Permanent Molds, Explains	March 1	104
Advantages of the Electric Furnace Gives	Aug. 1	88
Aerator, Describes Sand	Jan. 1	94
Aeronautical Industry, Nonferrous Castings Used	Nov. 15	75
Ages Iron Artificially	July 15	77
Aims at Perfection in Malleable Castings	Dec. 1	66
Air		
Driven Tool Has Numerous Uses	Dec. 1	106
Furnace Is Used in the Manufacture of Gun Iron	Oct. 15	80
Furnace Melting Practice, Describes	May 1	214
Used in Cupola, Gives Amount of	April 1	116
Volume Indicators, Describes Construction of	Feb. 15	107
Airplane Castings, Use Magnesium Alloy for	March 15	101
Ajax Metal Co.		
Celebrates Golden Anniversary	March 1	137
Installs Electric Furnace in Zinc Industry	March 15	92
Publishes Booklet on Golden Anniversary	June 15	84
Alabama Makes 65 Per Cent of Nation's Cast Iron Pipe	March 1	98
Alloy		
Aluminum Co. of America Develops Piston	Sept. 1	123
For Airplane Castings, Use Magnesium	March 15	101
For Aluminum Matchplates, Gives	Nov. 1	109
For Brass Fittings, Gives	Sept. 15	69
For Bushings, Gives	Jan. 1	111
For Manufacture of Match Plates, Gives	June 15	64
For Tablets, Gives	Sept. 15	69
For Valve Seats, Gives	Sept. 15	69
For Yellow Brass Castings, Gives	Jan. 1	111
French Foundry Casts Silicon-Aluminum	March 1	121
Gives Cause of Copper Spots in High Lead	July 1	108
Gives Properties of a New	Dec. 15	60
Ingot Specifications, Comments on Copper	Feb. 1	130
Ingot Trouble, Overcome	Aug. 15	60
Pistons Are Cast In Permanent Molds, Light	Nov. 15	67
Resists Heat	March 1	126
Steel, New Foundry Casts	Sept. 15	61
Discusses Iron-Silicon	July 15	85
Steel Castings, Gives Annealing Practice For	June 1	157
Steel Castings, Part I, Compares Properties of Various	Jan. 1	100
Steel Castings, Part II, Compares Properties of Various	Jan. 15	71
Steel Chains, Oil Sand Cores Used in Casting	June 1	159
Steel Data, Gives	May 15	85
Steels, Compares Various	Sept. 1	102
To Iron, Describes Method of Adding	May 15,	69
Alloys		
Discusses Nickel	April 15	86
For Aluminum Bronze, Gives	Aug. 15	78
For Ship Propellers, Gives	June 15	79
For Valve Bodies, Describes	April 15	69
Gives Aluminum	Feb. 15	93
Gives Standard Die Casting	June 15	68
Part V, British Foundrymen Cast Variety of	Jan. 1	121
Part VI, British Foundrymen Cast Variety of	Jan. 15	90
In Induction Furnace, Melts	April 1	118
Present in Stainless Steel Castings, Gives	Dec. 15	65
Propose Fewer Grades of Copper	Jan. 1	126
Refines Grain of Aluminum	Nov. 15	75
To Steel, Gives Methods of Addition of	Feb. 1	100
Used in Manufacture of Grate Bars	June 15	62
Used in Permanent Molds, Explains	Aug. 15	64
Aluminum		
Alloy, French Foundry Casts Silicon	March 1	121
Alloys, Gives	Feb. 15	93
Alloys, Refines Grain of	Nov. 15	75
And Carbon in Nonferrous Alloy, Describes Effect of	Feb. 15	73
As a Degasifier, Discusses	Feb. 1	100
As a Degasifying Agent, Discusses	Feb. 15	104
Bronze Bars, Explains Casting of	May 15	74
Bronze Castings, Describes Cores for	June 15	64
Bronze, Deoxidizes	March 1	126
Bronze, Explains Difficulties in Casting	June 15	64
Bronze, Investigates	April 15	86
Bronze, Make	June 1	158
Bronze Skulls in Ladle	Aug. 15	67
Bronzes, Gives Data on	Aug. 15	78
Castings Are Obtained by Improved Foundry Practice—Part I, Strong	Dec. 1	72
Castings Are Obtained by Improved Foundry Practice—Part II, Strong	Dec. 15	52
Castings, Welds	June 15	58
Causes Defect in Nonferrous Castings	Oct. 15	78
Copper Alloys Are Used For Pistons	Nov. 15	67
Copper Oxide Eliminates	Feb. 1	99
Floodlighting With Cast	Jan. 15	94
Has Important Part in New Buildings	Sept. 1	90
Is Stained	Dec. 15	66
Kitchenware Is Cast in Permanent Molds	Oct. 1	86
Matchplate Surfaces Defective	Nov. 1	109
Melting Pots, Gives Analysis of	May 1	201
Oxide Cores	March 1	128
Pan Needs Many Runners	May 15	60
Pattern Plates, Explains Method of Molding	Nov. 1	109
Patterns, Describes Method of Finishing	July 15	78
Scrap, Sorts	Aug. 15	78
Silicon Alloy Used for Ornamental Castings	Sept. 1	90
Sphere Taxes Foundry Ingenuity, Large	Feb. 1	103
Yellow Brass Castings, Iron Causes Specks In	April 15	92
Aluminum Co. of America Develops Piston Alloy	Sept. 1	123
Aluminum Co. of America Opens Research Laboratory	June 15	60
Aluminum Research Institute Chemists Meet	Nov. 15	69
Aluminum Research Institute to Standardize Analyses	Sept. 1	125
American Art Bronze Foundry, Chicago, Describes Molding Methods Used in	Feb. 1	112
American Brass Foundry Practice—Part V	Feb. 15	78
American Brass Foundry Practice—Part VI	March 15	88
American Brass Foundry Practice—Part VII	April 15	69
American Cast Iron Pipe Co., Description of Methods of Manufacture at	July 1	98
American Ceramic Society and American Refractories Institute Will Meet	Feb. 15	112
American Ceramic Society Plans Congress	Dec. 1	84
American Chemical Society Installs New Officers	Feb. 1	114
American Dressler Tunnel Kilns, Inc., and William Swindell & Bros., Combine	July 1	116
American Electrochemical Society Will Study Electric Furnace Iron	Aug. 15	81
American Foundry Equipment Co.		
Designs New Sand Preparing Machine	June 15	83
Introduce Screen	June 1	178
Markets Electric Heater	Sept. 1	127
American Foundrymen's Association		
And Quad City Foundrymen's association Plan Joint Meeting	March 1	114
And Quad City Foundrymen's Association Hold Joint Convention at Moline, Ill.	April 15	72
Announces Personnel of Advisory Committees	Dec. 15	78
Chooses Birmingham For Second Regional Meeting	Dec. 1	104
Convention at Cleveland Breaks All Records	June 1	126
Directors Meet in Detroit	Aug. 1	94
Elects New Directors	June 1	151
Method of Pattern Marking Made Commercial Standard	April 1	116
Nominates Officers and Directors	Feb. 15	112
Plans for Cleveland Convention and Exhibition	Jan. 1	98
Plans Joint Meeting, Quad City Group and	Feb. 15	89
Plans Shop Operating Courses	Feb. 1	98
R. S. MacPherran Awarded Whiting Medal by	Dec. 15	77
Recommendations Are Discussed	Dec. 1	84
Selects Chicago For 1931	Nov. 1	85
American Institute of Mining and Metallurgical Engineers Meets in New York	March 15	79
American Institute of Mining and Metallurgical Engineers Will Meet in New York	Feb. 15	79
American Maco Template Co. Introduces New Template	June 1	179
American Mfg. Co., Description of Foundry of	July 15	48
American Refractories Institute		
Elects Officers	June 15	66
Publishes Bulletins	April 1	139
Will Meet, American Ceramic Society and	Feb. 15	112
American Society for Testing Materials		
Committee Activities Hold Interest at Detroit Meeting of	April 1	134
Committee on Cast Iron Issues Report	Jan. 15	108
Has Busy Week	July 15	64
Publishes Reprint on Cast Iron Symposium	Jan. 1	99
Will Meet in Atlantic City	June 1	166
Will Meet in Chicago	Dec. 1	104
Will Meet in Detroit	Jan. 15	104
American Society of Civil Engineers Elects Officers	Feb. 1	134
American Society of Mechanical Engineers		
Celebrates Its Fiftieth Anniversary	April 1	115
Elects Officers	Oct. 15	92
Nominate Officers	July 1	97
Publishes Proposed Standards for Pipe Plugs	Nov. 15	52
American Standards Association		
Completes New Code for Lighting of Factories, Mills and Other Work Places	Sept. 1	128
Develops Standard For Pipe Fittings	Feb. 15	72
Draws Up Tentative Standards for Cast Iron Pipe Flanges and Fittings	Sept. 15	81

	Month	Page
Enlarges Staff	April 1	149
Holds Meeting on Gage Standards	July 15	70
Organizes Light Metals Group	Dec. 15	70
Publishes Standards Yearbook	July 15	63
Revises Safety-Code for the Use, Care and Protection of Abrasive Wheels	Sept. 15	63
Revises Woodworking Safety Code	Aug. 15	77
To Standardize Foundry Equipment	Sept. 15	82
Will Standardize Ferrous Flanged Valves	Oct. 15	91
American Water-Works Association Standard Specifications for Cast Iron Pipe and Fittings, Gives	April 1	120
American Welding Society to Hold Annual Meeting in Chicago	Sept. 15	82
America's Cup, Castings Aid in Defense of	Oct. 15	53
Ammonia Cylinder Mold, Iron Backs Out of	Dec. 15	63
Ammonium Nitrate Is Not Used in Steel Sand Mix	Jan. 1	108
Analyses of Stainless Steels, Gives	Jan. 15	88
Analysis		
Determines Distribution of Sand Grains, Screen	Jan. 15	78
Does Not Tell the Whole Story	Feb. 15	91
For Aluminum Melting Pots, Gives	May 1	201
For Chilled Roll, Gives	Nov. 15	60
For Chilled Rolls, Gives	Oct. 1	112
For Chilled Sheave Wheels, Gives	Nov. 15	60
For Enamel Ware Castings, Gives	April 1	144
For Engine Bed Castings, Gives	Sept. 15	66
For Gear Wheels, Gives	March 1	123
For Grate Bars, Gives	June 15	62
For Motor Head Castings, Gives	March 1	123
For Oil Engine Cylinder Blocks, Gives	Sept. 15	66
For Stove Plate Produced in Electric Furnace, Gives Ideal	Aug. 1	88
Of Bronze Used in Gear Blanks, Gives	Sept. 15	59
Of Chilled Castings, Gives Range of	Aug. 1	99
Of Gas Used for Cutting Heads and Risers, Gives	July 1	113
Of Gears, Gives	July 1	107
Of Gun Iron, Gives	June 15	63
Of Gun Iron, Gives	Oct. 15	80
Of Heat Resisting Irons, Gives	May 1	200
Of Iron for Ingot Molds	June 15	62
Of Iron For Permanent Molds, Gives	June 1	157
Of Iron for Pipe Fittings	Feb. 1	117
Of Iron For Piston Ring Castings, Gives	Jan. 15	64
Of Iron For Piston Rings, Gives	June 15	63
Of Lawnmower Castings, Gives	April 15	89
Of Limestone, Gives	Feb. 15	90
Of Medium, Low Bond Sand, Gives	April 15	74
Of Metal for End Housings for Motors, Gives	Oct. 15	80
Of Metal for Tire Molds	Oct. 1	92
Of Metal Used in Permanent Molds, Gives	March 1	104
Of Mine Car Wheels, Gives	March 15	98
Of Pig Iron Molds, Gives	Dec. 15	64
Of Seacoal, Gives	Jan. 1	110
Of Steel Used for Railroad Castings, Gives	June 15	42
Of Surface Clay, Gives	April 15	74
Of Various Sized Gears, Gives	Jan. 15	86
Should Govern Core Oil Specifications, Uniform Methods of	Feb. 1	121
Anchorages, Describes Cope	June 1	163
Andes Foundry Co., Description of	March 15	74
Annealing		
Boxes Difficult to Cast in Green Sand	Sept. 1	119
Gray Iron, Outlines Method Used in	Aug. 1	100
Malleable Cast Iron	Feb. 15	92
Of Cast Iron Pipe, Explains	Aug. 1	104
Of Malleable Iron, Explains	Feb. 1	117
Practice, Describes Malleable	May 1	214
Practice for Alloy Steel Castings, Gives	June 1	157
Practice for Gray Iron, Explains	Nov. 1	106
Practice for Small Motor Heads, Gives	March 1	123
Presents Data on	Feb. 15	107
Trays, Gives Metal Mixture For	March 15	99
Anneals Aluminum Castings	Oct. 1	86
Anneals Malleable Iron	Oct. 1	76
Antimony Causes Trouble in Nonferrous Castings	Oct. 15	75
Apparatus		
For Sorting Aluminum Scrap, Describes	Aug. 15	78
Used for Handling Pipe Molds and Cores, Describes	Nov. 15	42
Used in Installation of Induction Furnace	April 1	118
Used for Testing Oil Sand Mixtures	April 1	125
Apprentice		
Contest Winners Announced by A.F.A.	Aug. 1	113
Contests, Milwaukee Will Hold	Dec. 15	80
Training Is Advancing	June 1	133
Apprentices		
In the Foundry Industry, Bemoans Lack of	Dec. 1	81
Sell Apprenticeship—Part I, Let	Feb. 15	84
Sell Apprenticeship—Part II, Let	March 1	111
Receive Yearly Awards, Falk Corp.,	March 15	83
To Attend School, Oakland, Calif.	July 1	122
Architectural Aluminum Castings, Field Has Been Developed For	Sept. 1	124
Architectural Aluminum Castings, Gives List of	Sept. 1	90
Arsenic Is Detrimental to Nonferrous Castings	Oct. 15	75
Art Bronze Is Cast in Chicago Foundry	Feb. 1	112
Artist Foundryman Learned His Trade in France	Jan. 15	101
Associated Brass Foundries of New England Adopt Trade Customs	Jan. 15	104
Association Technique de Fonderie de Paris Meets in Paris	Jan. 1	123
Association Technique de Fonderie de Paris Elects Officers	June 1	156
Austin Co. Officials Depart for Russia	April 15	100
Austin Co. Officials Sail for Russia	March 1	142
Automobile Cylinder Head, Molds	Nov. 1	80
Automobile Hub Castings, Describes Molding of	Oct. 1	76
Automotive Castings, Specializes in	March 1	115
Avery, Ltd. Celebrates Bi-Centennial Anniversary, W. & T.	July 15	87

B

	Month	Page
Babbitt		
Is Too Soft	Oct. 1	93
Metal Is Faulty	Feb. 15	106
Metals, Makes	Oct. 15	82
Bailey Meter Co., Introduces Apparatus for Controlling Mixtures of Gases and Liquids	Aug. 15	83
Bake Cylinder Block Cores Continuous Ovens	Dec. 15	56
Ball, Experiences Difficulty in Securing Solid White Iron	Aug. 15	66
Ballard Is Vice President Elect, E. H.	June 1	126
Balls, Describes Permanent Mold for Casting Cast Iron	Oct. 15	79
Barrett-Cravens Co., Introduces New Lift-Truck	Oct. 1	119
Barrow Wheels Are Molded, Bill Tells How	Nov. 15	70
Bars, Explains Casting of Aluminum Bronze	May 15	74
Bars, Mixture for Grate	June 15	62
Base, Molds Machine	Sept. 15	70
Base, Synthetic Molding Sand Requires a Proper	Dec. 1	80
Basic Open-Hearth Furnaces, Gives Charges for	June 15	42
Battelle Memorial Institute Will Foster Industrial Research	Feb. 1	129
Beardsley & Piper Co., Introduces New Magnetic Separator	July 1	124
Beardsley & Pipe Co. Introduces New Sand Mixing Machine	Oct. 15	93
Bearing Metal, Explains Melting Practice for Bronze	Sept. 1	120
Bearing Properties, Cast Iron Has	March 1	107
Bearings, Gives Metal Mixture For	June 1	158
Bed, Describes Function of	April 1	116
Bedplate, Molds	Sept. 1	112
Beds Warp in the Mold, Long	Feb. 1	126
Belgian		
Convention, European Foundrymen Gather at	Aug. 1	95
Exchange Paper at French Foundry Convention, Comments on	Feb. 15	106
Foundrymen Will Hold Convention	Feb. 15	110
Believe It or Not—The Foundry Industry Needs the Technician	Oct. 1	109
Bell, Bill Does Not Favor Welding	April 15	95
Bell Mixtures, Wants	July 15	78
Bells on Water Pipes, Sand Sticks to	Aug. 15	65
Belt Guard, Uses	Aug. 15	84
Berchem, Personal Sketch of Jules	Jan. 15	101
Berkshire Mfg. Co., Designs New Valve Type Vibrator	Nov. 15	80
Bessemer Foundry & Machine Co., Description of	Oct. 15	54
Bill		
Again Brings Up the Keel Question	July 1	117
Comments on High Hats and Spark Arresters	May 1	204
Diagnoses Some Shrinkage Cavities	April 1	140
Discovers Many Classes of Shot	Nov. 1	110
Discusses the Number of Foremen Required	Feb. 1	128
Does Not Favor Welding a Bell	April 15	95
Explains Sweeping of a Gear Blank	Sept. 15	75
Favors Greater Number of Tuyeres	Dec. 15	71
Gets a Hot Tip on Keel Molding	May 15	82
Goes on a Trip Among the Gates	Dec. 1	93
Hears of Steel Casting for Diver	June 15	76
Makes a Plea for Industrial Peace	Jan. 15	97
Offers Advice On Permanent Molds	Jan. 1	114
Prescribes for a Cracked Bolster	Oct. 15	87
Reads a Story about a Foundry	March 15	102
Says Hand Ladles Are Hard to Dry	June 1	169
Talks Weapons And Small Cupolas	Oct. 1	113
Tells How Barrow Wheels Are Molded	Nov. 15	70
Tells of Molding a Smokestack—I	July 15	79
Tells of Molding a Smokestack—II	Aug. 1	114
Tells of Molding a Smokestack—III	Aug. 15	75
Tells of Molding a Smokestack—IV	Sept. 1	121
Tells Why Steel Wheels Crack	March 1	131
Thinks of Going on the War Path	Feb. 15	100
Binder to Sand, Explains Addition of Core	Feb. 15	90
Binder, Should Check Amount of	Dec. 15	63
Binders, Explains the Use of Various	July 1	109
Birmingham Branch of I.B.F. Meets	Feb. 15	88
Birmingham Chosen For Second A.F.A. Regional Meeting	Dec. 1	104
Bismuth Causes Difficulty in Nonferrous Castings	Oct. 15	75
Black & Decker Mfg. Co., Introduces New Bench Type Grinder	Jan. 15	107
Black & Decker Mfg. Co. Forms New Sales Division	Nov. 15	74
Blacking, Discusses Application of Wet	May 1	220
Blanks Poured in Spinning Steel Molds, Bronze Gear	Sept. 15	59
Blast Causes Hard Spots in Castings	Feb. 1	115
Blast Pipes, Shows Various Types of	Nov. 15	55
Blow from Water Jacket Core, Explains Method of Eliminating	May 15	73
Blow, Jacket Core Causes	Sept. 15	64
Blower Companies Merge	Feb. 15	72
Blower Is Too Large	Oct. 15	79
Blows in Cast Iron Rolls Cause Trouble	Oct. 1	91
Blows, Inserts Cause	Dec. 1	88
Boderick Retires From Business, J. T.	Aug. 15	84
Boegehold Addresses Detroit Foundrymen's Association, A. L.	April 1	149
Boiler Plugs, Gives Metal Mixture for Locomotive	March 15	101
Bolster, Bill Prescribes for a Cracked	Oct. 15	87
Bolts, Castings Aid in Manufacture of Nuts and	June 1	125
Bond		
And Sheer, Shows Variation Between	April 15	74
Content, Cost of Sand Mixtures with Same	June 15	56
Grain Size and Permeability, Curves Showing Relationship Between Percentage of	March 15	84
Of Mixtures, Gives Data on Hardness and	April 15	74
Percentages, Shows Sands With Grain Size and	July 15	59
Bonding Material, Studies Properties of	Sept. 15	57
Book Review		
Annual Statistical Report of American Iron & Steel Institute for 1928	June 15	59
Annual Statistical Report of the American Iron & Steel Institute	Oct. 1	115
Bearing Metals and Bearings	June 1	166
Bibliographie der Electrometallurgie des Technichen Eisens	July 15	81

	Month	Page
Der Industrieofen in Einzeldarstellungen, Part III Abmessungen von Hoch und Martinofen	April 1	110
Die betriebspraxis der Eisen, Stahl und Metallgiesserie, Part VIII	Feb. 1	135
Die Casting Practice	Aug. 1	94
Gmelins Handbuch der Anorganischen Chemie, Eisen, Teil A-Lieferung 1	April 15	94
Gmelins Handbuch der Anorganischen Chemie, Eisen, Teil B. Lieferung	Aug. 1	117
Gmelins Handbuch der Anorganischen Chemie, Eisen, Teil A, Lieferung 2	Oct. 15	91
Hochwertiger Grauguss	Sept. 15	84
Market Data Handbook of the United States	April 15	100
Mechanical Engineers' Handbook	Sept. 15	82
Method of Testing for Foundry Molding Sands	Oct. 1	9.
Metallurgy of White Metal Scrap and Residues	Oct. 15	94
Mineral Resources of the United States—1926	Sept. 15	84
Penton's Machine Shop Directory	Sept. 1	125
Popular Research Narratives—Vol. III	Feb. 15	87
Practical Japanning and Enameling	Nov. 15	72
Proceedings of the American Society for Testing Materials, Vol. 29	Feb. 1	122
Standard Costs, Installation, Operation, and Use	June 1	181
The Aluminum Industry	Sept. 1	125
The Constitution of Steel and Cast Iron	Nov. 1	84
The Practice of Spectrum Analysis	Feb. 1	97
The Principles of Iron Founding	June 1	162
The Principles of Metallurgy	June 1	1.2
Thomas & Gilchrist, Bolckow & Vaughan	Feb. 1	128
Transactions of the American Foundrymen's Association Vol. XXXVII	Feb. 1	99
Borax For Flux For Copper Lead Alloys, Uses	Jan. 1	111
Borings		
Explains Furnace Practice When Melting	June 15	64
Gives Method for Melting Iron	April 15	89
Recovers Scrap	Oct. 1	92
Reduces Gray Iron Melting Costs, Briquetting	July 15	68
Uses Cast Iron	Nov. 1	107
Bosch Magneto Co., Inc., Introduces Forced-Feed Lubricator, Robert	Oct. 1	120
Botfield Refractories Co., Philadelphia, Develops New High Temperature Cement	Feb. 1	132
Bottom in the Cupola, Rams the	Nov. 1	101
Boxes Difficult to Cast in Green Sand, Annealing	Sept. 1	119
Brackelsberg Furnace, Describes	Jan. 15	100
Bracket with Arms, Molds	June 1	163
Brake Drum, Should Redesign	June 15	63
Brass		
And Bronze, Lead Affects	Sept. 15	79
Are Revealed by Deep Etching, Defects in Cast	July 1	92
Attempts to Cast Gray Iron Handle on	Oct. 1	91
Bushings, Core Causes Gas Holes in	Dec. 1	90
Bushings Have Defects	Dec. 15	66
Castings, Cores Stick In	Aug. 15	67
Castings, Describes Molding of	March 15	88
Castings, Gives Alloy For Yellow	Jan. 1	111
Castings, Molds	July 15	48
Castings, Mounts Patterns for	April 15	69
Castings Offer Economical Engineering Materials	Jan. 15	93
Castings, Outlines Method for Elimination of Metal Separation in	May 1	203
Castings, Should Not Use Seacoal for	Jan. 15	89
Copper Oxide Eliminates Aluminum from	Feb. 1	99
Fittings, Dip Stains	Sept. 15	69
Fittings, Ingots Should Be Used for	Nov. 15	62
Fittings Turn White	Nov. 15	62
Flux, Makes	July 15	48
Foundries Stabilize Business?, How Can	April 1	109
Foundry Practice—Part V, American	Feb. 15	73
Foundry Practice—Part VI, American	March 15	88
Foundry Practice—Part VII, American	April 15	69
Foundry, Stainless Steel Not Made in	Dec. 15	65
Foundry Uses Special Crucible	June 1	162
Gasoline Stove Castings, Gives Melting Data on	Aug. 15	67
Ingot Institute Favors Research	June 1	141
Is Too Soft	April 15	92
Melting Features Course	June 1	137
Melting Furnaces Are Fired With Two Oil Burners	Nov. 1	92
Melting Practice, Explains	Dec. 1	90
Mixture, Explains Method of Adding Iron to	May 15	74
Or Copper Substituted for Steel as Core for Chills	Nov. 1	113
Plumbing Castings, Gives Metal Mixtures for	April 15	92
Part I, Preventing Unsoundness in Bronzes and Red	Aug. 1	84
Part II, Preventing Unsoundness in Bronzes and Red	Sept. 1	108
Part III, Preventing Unsoundness in Bronzes and Red	Oct. 15	75
Part IV, Preventing Unsoundness in Bronzes and Red	Nov. 15	47
Part V, Preventing Unsoundness in Bronzes and Red	Dec. 15	48
Sand Data, Gives	April 1	130
Scrap With Care, Select	Sept. 15	72
Soap Molds, Explains Method For Securing Sharp Letters On	Oct. 1	93
Tablets, Gives Alloy for	Sept. 15	69
Water Fronts Are Not Water Tight	March 1	126
Brasses, Describes Solidification of Locomotive Driving	Feb. 1	118
Brazing Equipment Uses Resistance Principle	Aug. 15	85
Brazing of Cast Iron Flanges to Copper Pipe, Explains	Aug. 1	99
Breakage, Internal Tension Causes	May 15	85
Breakdown Test Has Advantages	Dec. 1	72
Break Scrap For Foundry in a Special Pit	Nov. 15	69
Breuer Electric Mfg. Co. Introduces Vacuum Cleaner	June 1	180
Bridge Construction, Castings Used in	March 15	73
Brinell		
Hardness After Continuous Heat Treatment, Gives Carbon and	Oct. 1	103
Hardness, Explains Variations in	Nov. 1	86
Hardness of Manganese, Chrome, Nickel, Molybdenum Cast Steel	Jan. 15	71
Briquetting Borings Reduces Gray Iron Melting Costs	July 15	68

	Month	Page
British		
Foundrymen Cast Variety of Alloys—Part V	Jan. 1	121
Foundrymen Cast Variety of Alloys—Part VI	Jan. 15	90
Foundrymen Study Industry's Technical Problems	July 15	71
British Cast Iron Research Association Holds Meeting	Dec. 1	95
British Engineering Standards Association Specification For Gray Iron, Explains Features of	Nov. 1	93
British Institute of Metals		
Holds Meeting in London	April 15	84
Meets	Oct. 15	61
Meets at Southampton	Aug. 15	63
Will Meet in London	March 1	114
British Iron and Steel Institute		
Meets	June 15	66
To Meet in London	May 1	199
Will Meet at Prague	March 1	120
Bronze		
Bars, Explains Casting of Aluminum	May 15	74
Bearing Metal, Explains Melting Practice for	Sept. 1	120
Bushings Are Porous	Oct. 1	93
Bushings, Describes Melting Practice for	Feb. 15	93
Castings, Gives Constituents of Acid Dip for	April 1	130
Castings, Molasses Water and Silica Flour Is Used on Cores for	Sept. 15	65
Copper Oxide Eliminates Aluminum From	Feb. 1	99
Deoxidizes Aluminum	March 1	126
Examines Structure of	Aug. 15	78
Explains Difficulty in Casting Aluminum	June 15	64
Gear Blanks Poured in Spinning Steel Molds	Sept. 15	59
Gears, Gives Metal Mixtures For	April 15	92
Is Cast in Chicago Foundry, Art	Feb. 1	112
Is Melted in the Cupola	Nov. 15	55
Lead Affects Brass and	Sept. 15	79
Liners, Molds	April 1	130
Make Aluminum	June 1	158
Memorial Commemorates Achievements of Westinghouse	Nov. 1	98
Mixture to Withstand Superheated Steam and High Pressure, Gives	Aug. 1	103
Pump Bodies, Describes Molding Practice for	March 15	88
Pump Castings, Gives Metal Mixtures for	March 15	101
Skulls in Ladle	Aug. 15	67
Bronzes		
And Red Brass—Part I, Preventing Unsoundness in	Aug. 1	84
And Red Brass—Part II, Preventing Unsoundness in	Sept. 1	108
And Red Brass—Part III, Preventing Unsoundness in	Oct. 15	75
In Red Brass—Part IV, Preventing Unsoundness in	Nov. 15	47
And Red Brass—Part V, Preventing Unsoundness in	Dec. 15	48
Are Cast In Permanent Molds, Railroad	Jan. 1	104
Tablets, Prepares Facing Sand for	March 15	118
Brosius, Inc., Makes Grab Bucket, Edgar E.	Jan. 15	107
Brown & Sharpe Mfg. Co. Introduces Fillet and Radius Gages	Sept. 15	83
Buckeye Portable Tool Co., Introduces Grinder and Sander	July 15	88
Buckeye Portable Tool Co. Introduces Small Grinder	June 15	83
Buddha in Japan, Large Cast Bronze	Oct. 15	68
Budget Directs Operating and Sales Efforts, A Foundry	Nov. 15	53
Buffalo Chapter of Gray Iron Institute Formed	June 1	175
Buffalo Forge Co. Introduces Air Circulator	Jan. 15	106
Buffalo Pipe & Foundry Co., Buys Radiator Plant	Oct. 1	102
Building, Cast Iron Cores Reinforce Columns of Concrete	March 15	112
Buildings, Aluminum Has Important Part in New	Sept. 1	90
Builds Small Malleable Furnace	June 15	63
Bull Addresses Chicago Foundrymen's Club, Maj. R. A.	April 1	142
Bureau of Standards Issues Bulletin of Simplified Practice on Wheelbarrows	June 15	81
Bureau of Standards Reports on Blistering of Enameled Cast Iron	Jan. 1	133
Bushing Core, Explains Manufacture of	July 1	109
Bushing Defect, Cores Cause	Jan. 15	89
Bushings		
Are Porous	Oct. 1	93
Core Causes Gas Holes in	Dec. 1	90
Cores Stick In Brass	Aug. 15	67
Describes Melting Practice For Bronze	Feb. 15	93
Gives Alloy for	Jan. 1	111
Gives Metal Mixture for Piston End	Sept. 1	120
Have Defects	Dec. 15	66
Business Is Increasing	Dec. 1	100

C

	Month	Page
Calculates Number of Sand Grains,	July 15	59
Calculates Sand Mixtures	June 15	56
Calculation for Malleable Iron Castings When Physical Properties Are Known	May 15	73
Caldwell & Son Co., Standardize Elevator Drive Equipment, H. W.	March 15	116
Caldwell & Son Co., Standardizes its Screw Conveyor Drives, H. W.	June 1	181
California, Discusses Sand Problem in	Feb. 15	108
Cam Chills, To Make	Oct. 1	91
Cameron, Biographical Sketch of John	Aug. 15	79
Canal, Castings Lock Ships Through New Welland	Oct. 1	75
Car Wheels		
Describes Gating of Mine	Feb. 15	92
Gives Metal Mixture for	March 1	124
Gives Metal Mixture for Mine	March 15	98
Carbon		
And Brinell Hardness of Specimens After Intermittent Heat Treatment	Oct. 1	103
Changes Form in Annealing Malleable Iron	Jan. 1	110
Content, Classifies Cast Irons on Silicon Plus	April 1	111
Content Is High	Nov. 15	60
Gases Not Soluble in Copper	Sept. 1	108
In Nonferrous Alloys, Describes Effect of Aluminum on	Feb. 15	73
Increases Brinell Values, Increased Combined	Nov. 1	86

	Month	Page
Is Controlled in Cast Iron	Sept. 15	66
Is Controlled in Synthetic Gray Iron	Nov. 15	51
Is Too High	July 15	77
Carnegie Institute of Technology Receives Sand Unit	July 1	116
Cast		
Brass Are Revealed by Deep Etching, Defects in	July 1	92
Culverts Help to Keep Water Off Highways	Dec. 1	65
Horizontally, Pressure Pipe Is	Sept. 15	48
Pipe Daily, Machines Spin 10 Miles of	May 15	75
Pipe With Universal Joints	Nov. 15	42
Rolls in a Chill	April 1	128
Cast Iron		
And Copper Will Not Mix	March 1	126
Attracts Attention	July 15	65
Balls, Describes Permanent Molds for	Oct. 15	79
Containers, Describes Manufacture of	June 15	79
Cores Reinforce Columns of Concrete Building	March 15	112
Describes Methods of Producing Malleable	Feb. 15	92
Explains Effect of Nickel on	March 15	113
Flanges for Abrazing to Copper Pipe, Uses Close Grained	Aug. 1	99
Growth, Elements Effect	Dec. 15	60
Heat Treats	Aug. 15	78
Long Heating Periods at High Temperatures Affect Gray	Oct. 1	103
In Various Processes, Explains Solidification of	Feb. 15	107
Investigates Acid Solubility of Various Types of	Jan. 15	100
Makes Electric	Dec. 15	60
Pipe, Alabama Makes 65 Per Cent of Nation's	March 1	98
Pipe Data Is Given in Research Bulletin	Nov. 1	116
Pipe Industry, Describes Facilities of Southern	April 1	120
Pipe Research Association Organizes Committee	Sept. 15	82
Produced By Large Steel Scrap Additions, High Grade	Jan. 1	112
Report on Quantitative Measuring of Silicon in	June 15	79
Road Markers Tell Historical Settings	April 15	85
Rolls Cause Trouble, Blows in	Oct. 1	91
Toys Are Favorites	Dec. 15	78
Toys, Imagination Builds Business in	March 15	74
Cast Irons		
Discusses Pearlitic	May 15	85
On Silicon Plus Carbon Content, Classifies	April 1	111
Surveys High Duty	May 15	85
Casting		
Comments on Production of Electric Steel For	Feb. 15	103
Copper, Gives Data on	July 15	85
Fed Improperly	Dec. 15	65
Sale Price Determined by Foundry Costs	Oct. 15	59
Shrinks in Hub	March 1	125
Temperature Causes Copper Ingots to Swell	Oct. 1	93
Castings		
Add Artistic Touch To Railway Stations	Feb. 1	93
Aid in Defense of America's Cup	Oct. 15	53
Aid in Fabrication and Building Construction	Feb. 15	67
Aid in Handling Large Ore Shipments	Nov. 15	41
Aid in Manufacture of Nuts and Bolts	June 1	125
Aid Intercontinental Telephone Communication	Aug. 1	83
Aid Production of Wrought Iron	June 15	41
Aims at Perfection in Malleable	Dec. 1	66
And Ingots, Compares	July 15	52
Are Obtained by Improved Foundry Practice—Part I, Strong Aluminum	Dec. 1	72
Are Obtained by Improved Foundry Practice—Part II, Strong Aluminum	Dec. 15	52
Are Used in Jacks to Lift Heavy Loads	Nov. 1	79
Are Used on Long Natural Gas Pipe Line	Aug. 15	43
Are Warped	Nov. 15	61
Build Roads	Feb. 1	129
Carry Molten Metal From Blast Furnaces	Dec. 15	43
Core Stick in Brass	Aug. 15	67
Crack, Copper	Feb. 15	93
Depend on Feeding Methods, Sound Malleable Iron	Oct. 1	76
Fit Exacting Needs in Exposed Clocks	July 15	47
Floodlighting With Aluminum	Jan. 15	94
For Diversified Industries, Cleveland Foundries Supply	May 1	168
Have Place in Home Construction	Sept. 15	80
Have Served a Century	Oct. 1	116
Improves Toughness in Lawn Mower	Aug. 15	65
In a New Foundry, Makes Textile Machinery	Jan. 1	88
In Safety Vaults Foil the Cracksman	Sept. 15	47
Lead A Dog's Life in Holding Doors Open	May 15	49
Lock Ships Through New Welland Canal	Oct. 1	75
Numerous Patterns Are Required for Pump	Jan. 1	117
Offer Economical Engineering Materials, Brass	Jan. 15	93
Part I, Compares Properties of Various Alloy Steel	Jan. 1	100
Part II, Compares Properties of Various Alloy Steel	Jan. 15	71
Provide Ventilation for Taxi Stands	March 1	97
Recall Virginia's Early History	April 15	85
Replace All-Welded Structure	Nov. 1	114
Replace Welded Steel Structures	Oct. 1	116
Requires Many	June 1	180
Resist Heat	Sept. 15	65
Resist Wear	March 15	98
Run Up the Curtain As the Show Goes On	Jan. 15	63
Sand Causes Dirty	Feb. 1	116
Shrink, Small	Jan. 15	88
Specializes in Automotive	March 1	115
Specification of Light Alloy	Jan. 1	121
Steady the Nerves by Preventing Slams	April 1	103
Steel Foundry Specializes in Railroad	June 15	42
Steel Foundry Specializes in Railroad	July 1	113
Stop Skidding Car Headed for the River	March 15	73
Supply Drinking Water for Livestock	July 1	87
Vary in Weight	Oct. 1	90
Wants Acid Proof	Jan. 1	108
Welds Aluminum	June 15	55
X-rayed With Portable Apparatus	Feb. 15	76
Casts		
Alloy Steel, New Foundry	Sept. 15	61
Gear Blanks Centrifugally	Aug. 15	78
Pipe Centrifugally in Sand Molds	July 1	98
Pipe Vertically in Sand	Sept. 1	104
Piston Rings Individually	Jan. 15	64
Caterpillar Tractor Co., Description of	May 15	50
Cavities, Bill Diagnoses Some Shrinkage	April 1	140
Cement Is Not Used as Binder	Nov. 15	59
Central Foundry Co., Description of	Nov. 15	42
Centrifugal Casting		
Explains	May 15	85
Machine, Explains Features of	Aug. 1	104
Of Gear Blanks, Explains	Sept. 15	59
Of Pipe, Explains	May 15	75
Centrifugal Castings, Study	April 15	86
Centrifugal Pump Housing, Molds	Sept. 15	70
Centrifugally, Casts Gear Blanks	Aug. 15	78
Centrifugally in Sand Molds, Casts Pipe	July 1	98
Century Electric Co. Makes Air Cooled Induction Motor	March 15	116
Chain Belt Executives Are Advanced	Nov. 15	66
Chains, Oil Sand Cores Used in Casting Alloy Steel	June 1	159
Chains, Special Metal Used in Making	Aug. 1	122
Chaplets Cause Blows in Laundry Heater Fire-Pot Castings	Nov. 1	113
Chaplets, Describes Various Types of	June 1	163
Characteristics of Aluminum, Gives	Dec. 15	52
Charge for Electric Furnace, Gives	Aug. 1	88
Charge Using Borings, Gives Cupola	July 15	68
Charger Is Powered by Gasoline Engine	Aug. 15	85
Charges		
For Cupola Malleable, Gives	Feb. 1	117
For Cupola Malleable, Gives	March 1	125
For Making Grate Bars	June 15	62
For Roll Casting	June 1	156
For the Manufacture of Semisteel, Gives	July 1	106
Gives Blast Figures for Various	Feb. 1	115
Gives High Temperature, Small	May 1	201
Used for Mine Car Wheels	March 15	98
Used to Produce White Iron, Cupola	March 15	98
Charging Methods for the Cupola, Explains	Nov. 1	101
Charging Practice at The Vulcan Mold & Iron Co., Describes	Feb. 15	105
Chart		
Showing Absorption Coefficients of Gases in Copper	Dec. 1	76
Showing Absorption Coefficients of Various Gases	Sept. 1	108
Showing Average of Transverse Strength on Specimens Containing Various Amounts of Steel Scrap in the Charge	Aug. 1	110
Showing Contraction Curves by Various Authorities	Dec. 1	76
Showing Deflection to Phosphorus Content in Gray Iron	June 1	152
Showing Effect of Moisture on Compressive Strength of Cores Made With Various Commercial Core Binders	Dec. 15	52
Showing Eect of Pouring Temperatures on Tensile Strength of Aluminum Castings	Dec. 15	52
Showing Expansion and Contraction Effects in Cast Iron	Dec. 1	76
Showing Klingenstein's Results Obtained From Two Different Sizes of Bars	Aug. 1	110
Showing MacKenzie's Curve Showing Relation Between Deflection and the Sum, Carbon Plus One-Fourth the Silicon	Aug. 1	110
Showing Maurer's Diagram Extended to Include Variations in Cooling Rate	Sept. 1	94
Showing Melle's Drill Depth and Brinell Relationship	Nov. 1	86
Showing Porosity Curves in Casting Refined Copper	Sept. 1	108
Showing Ranges Separating Gray from White and Mottled Cast Irons According to Graphite Crystallization	Oct. 15	62
Showing Relation of Brinell Number to Tensile Strength	Nov. 1	86
Showing Relation of Shear to Tensile Strength	Sept. 1	94
Showing Relation of Silicon Plus Carbon on 1, 1.2, 1.25, and 2-inch Test Bars	Aug. 1	110
Showing Relation of Specific Gravity and Tensile Strength in Commercial Bronzes	Dec. 1	76
Showing Relation of Strength and Specific Gravity of Brasses Under Various Operating Conditions	Aug. 1	84
Showing Solubility of Hydrogen in Copper	Sept. 1	108
Showing Solubility of Sulphur Dioxide in Copper	Sept. 1	108
Showing that Increase of Fine Molding Sand Permits Moisture Increase at the Expense of Permeability	Aug. 15	52
Showing That the Strength of Cast Iron Increases as Its Composition Approaches That of Steel	Aug. 1	110
Showing Transverse Tensile Strengths of 1.2-inch Bars From a Number of Foundries, With Recent Specified Figures	Nov. 1	95
Showing Uniformity Test on Gray Iron With Rockwell Tester	Nov. 1	86
Showing Variation of Transverse Strength With Diameter of Cast Bar for Skin-Machined Bars	Nov. 1	93
Showing Variation of Transverse Strength With Silicon Content With Bars of Varying Diameters	Nov. 1	93
Shows Difference in Modulus of Elasticity as Shown by the Tensile Stress-Strain of Various Irons	June 1	152
Shows Stress-Strain Diagrams of Different Types of Iron	June 1	152
Shows Tensile, Stress-Strain Curves of Same Grade of Iron With Different Sized Bars	June 1	152
Shows Values For Plastic Deformation in Six Repeated Loadings to Three-Quarters Ultimate Strength Plotted Against Ultimate Modulus of Elasticity	June 1	152
Charts		
Showing Effect of New Sand Additions	May 15	56
Showing Factors for Determining Permeability	May 15	56
Showing Relation Between Tensile Strength and Test Bar Diameter	Sept. 1	94
Chemical Analyses of High Silicon Light Alloys, Gives	Jan. 1	121
Chemical Analyses of Molding Sands	Jan. 1	94
Chemical Analysis		
Of Acid Proof Cast Iron Castings, Gives	Jan. 1	108
Of Cast Iron With Large Steel Scrap Additions	Jan. 1	112
Of Core Oils, Describes	Feb. 1	121
Chemical		
Composition of Sand, Gives	Jan. 1	94
Composition of Stove Grates, Gives	March 15	98

	Month	Page
Properties of Chrome Steel	Jan. 15	71
Chemistry Has Played An Important Role in Steel-Making	Sept. 1	124
Chicago		
Board of Trade Building Topped by Aluminum Statue	Oct. 1	102
Chapter of Gray Iron Institute Organized	April 15	73
For 1931, A.F.A Selects	Nov. 1	85
Chicago Eye Shield Co., Introduces Improved Safety Goggle	Oct. 1	119
Chicago Foundrymen's Club		
Elects Officers	Dec. 15	82
Discusses A.F.A. Cupola Recommendations	Dec. 1	84
Grubb Talks to	Nov. 1	84
Publishes Report on Third International Foundrymen's Congress	Jan. 15	94
Chicago Pneumatic Tool Co.		
Introduces Air-Driven Portable Grinder	April 15	102
Introduces New Portable Grinder	June 1	181
Makes Vertical, Duplex Compressor Unit	March 15	117
Chill		
Casts Rolls in a	April 1	127
Depends Upon Silicon Content	Aug. 1	99
Higher Silicon Prevents	Dec. 1	89
Introduces Coil	March 15	117
Lower Silicon Increases	March 1	124
Roll, Molds	Nov. 15	57
Washes, Gives Various	Dec. 1	89
Wrinkles Due to	June 15	62
Chilled		
Iron, Gives Analysis of	Jan. 1	109
Roll, Casts	Nov. 15	60
Roll Cracks	June 1	156
Rolls Crack	Sept. 15	65
Sheave Cracks	Aug. 1	100
Chills		
Care Should Be Exercised in the Use of	Dec. 1	72
Should Be Used in Molding Matchplates	Nov. 1	109
Used in Permanent Molds, Explains Use of	March 15	109
Used On Driving Brasses	Feb. 1	118
Chinese Working Conditions, Describes	March 15	91
Chipping Hammer, Introduces New Type	Jan. 1	132
Chisholm-Moore Hoist Corp., Introduces New Hoist	Aug. 1	122
Chrome Nickel Steel, Properties of	Jan. 15	71
Chromium		
Irons, Gives Properties of High	May 1	200
On Steel, Describes Effect of	Jan. 1	100
On the Rusting Properties of Cast Iron, Describes Effect of Nickel and	Oct. 1	92
Plating, Outlines Principles For Good Practice in	Aug. 15	84
Used in Mixture for Aluminum Melting Pots	May 1	201
Circuit Breakers Are Trip Free	April 15	102
Clamp Works on a New Principle	Jan. 1	124
Clamps, Describes Various Types of Mold	May 15	65
Clamshell Bucket Has Safety Features	Sept. 15	83
Clamshell Bucket, Ruggedness Is Feature of	Aug. 15	86
Clark Tructractor Co.		
Designs Charger Powered by Gasoline Engine	Aug. 15	85
Designs New Type Conveyor	Aug. 15	83
Introduces Power Scoop	June 15	82
Introduces Variable Height Crane	Dec. 15	82
Classification and Grades of Foundry Iron	Oct. 15	66
Classifies Metal Molds,	March 1	104
Clay, Gives Analysis of Surface	April 15	74
Clays, Studies Rebonding Properties of	Sept. 15	57
Clean Castings, Runners Are Staggered For	Dec. 15	76
Cleaner, Dual Operation Provided in New	Aug. 15	84
Cleaning Methods, Describes	April 15	86
Cleaning Room, Outlines Equipment Used in	Dec. 15	67
Cleanliness Is Pride of an Ohio Gray Iron Foundry	Nov. 1	80
Cleans Centrifugally Cast Gear Blanks	Sept. 15	59
Cleans Radiator Castings by Machine	Nov. 15	79
Cleveland		
Convention and Exhibition, A.F.A. Plans for	Jan. 1	98
Convention Breaks All Records	June 1	126
Convention, Gives Committees for	March 15	107
Entertainment Committee, Shows	May 1	181
Foundries Supply Castings for Diversified Industries	May 1	163
Prepares for Visiting Foundrymen	March 15	107
Trade School Opens Foundry Section	Jan. 1	125
Cleveland Pneumatic Tool Co., Issues Catalog	Feb. 1	114
Cleveland Pneumatic Tool Co. Places New Type Sand Rammer on Market	Aug. 1	120
Climax Molybdenum Co., Issues Bulletin on Uses	June 1	178
Clutch Casting Shrinks at Hub	March 1	125
Clocks, Castings Fit Exacting Needs in Exposed	July 15	47
Coal Dust, Explains Use of	Feb. 15	97
Coating		
For Cores for Glass Molds, Gives	Feb. 15	90
For Roll Chill, Gives	Sept. 15	65
Makes Holes	Dec. 1	89
Coke, Describes Properties of Foundry	Oct. 15	66
Coke for Bed, Describes Methods of Measuring	April 1	116
Cold Metal Causes Defect in Wheel	July 15	74
College Foundry Courses, Gives Value of	March 15	80
College Foundry Training, Expresses Opinion on	Aug. 1	92
Columbia Malleable Castings Co., Description of	Dec. 1	66
Comments		
On Early Days in Pipe Industry	July 1	102
On Foundry Equipment Needs	March 1	138
On Ignorance of Foundry Practice	April 1	146
On Production of Electric Steel For Casting	Feb. 15	103
On the Need of Alcohol in the Pattern Shop	March 1	138
On the Need of Proper Foundry Training Courses	March 15	114
Commercial Inspectors to Employers, Outlines Obligation of	Aug. 15	72
Committee Activities Hold Interest at Detroit Meeting	April 1	134
Committees for Cleveland Convention, Gives	March 15	107
Comparative Data on Sand Mixtures, Gives	April 15	74
Compares		
Methods for Producing Electric Furnace Steel	Feb. 1	100
Properties of Alloy Steel Castings—Part I	Jan. 1	109
Properties of Various Alloy Steel Castings—Part II	Jan. 15	71
Complexities Confront the Steel Foundry Industry	July 15	52
Composing Stone Is Foundry Product	Sept. 1	88
Composition		
Of Bronze for Gear Blanks, Gives	Aug. 15	78
Of Gases in Copper	Nov. 15	47
Of Molding Sand Mixtures	Feb. 15	97
Of Various Light Alloys, Gives	Nov. 15	67
Compositions of Stainless Steels Gives	Jan. 15	88
Compression Strength of Cast Iron, Discusses	Nov. 1	93
Compressive Strength of Cores Made With Various Core Binders	Dec. 15	52
Compressor Is Equipped With Ball Bearings,	Feb. 1	135
Compressor Unit, Makes Vertical, Duplex	March 15	117
Connecticut Foundrymen's Association Discusses Costs	Dec. 1	84
Connorsville Blower Co., Elects Officers	March 1	141
Constitutional Diagram of Cast Iron According to Maurer	Aug. 1	110
Construction of Continuous Core Ovens, Describes	Dec. 15	56
Construction of Permanent Molds, Describes	March 1	104
Containers, Describes Manufacture of Cast Iron	June 15	79
Continental Roll & Steel Foundry Co. Formed	July 1	123
Continuous Oven Reduces Core Losses	Aug. 15	58
Continuous Process to Malleable Practice, Apply	May 15	61
Contraction, Measures Metal	Sept. 15	79
Contraction Properties of Gray Iron, Explains General Conclusions on	Dec. 1	76
Control		
Increases Economy in the Foundry—Part I, Sand	March 15	84
Increases Economy in the Foundry—Part II, Sand	April 15	74
Increases Economy in the Foundry—Part III, Sand	May 15	56
Increases Economy in The Foundry—Part IV, Sand	June 15	56
Increases Economy in the Foundry—Part V, Sand	July 15	52
Increases Economy in the Foundry—Part VI, Sand	Aug. 15	52
Increases Economy in the Foundry—Part VII, Sand	Sept. 15	57
Of Duplexing Process, Describes	May 15	61
Of Materials Features Die Casting Plant	June 15	69
System Is Applied Easily to Foundries	Aug. 15	71
Convention Activities, Outline	May 1	176
Converter Operation, Describes	Oct. 15	81
Conveyor Design Uses New Principle	Aug. 15	83
Conveyors Built for Severe Service	Dec. 1	106
Cooling Conditions on Gray Iron, Describes Influence of	April 1	111
Cooperation Between Customer and Foundrymen Necessary For Reasonable Pattern Costs	Aug. 15	56
Co-operation Brings Better Pattern Equipment	Jan. 15	75
Cope Anchorages, Describes	June 1	163
Copper		
Alloy, a New Silicon-Zinc	Dec. 15	60
Alloy Ingot Specifications, Comments on	Feb. 1	130
Alloys, Explains Use of Manganese and Silicon as Deoxidizers in	Sept. 15	79
Alloys, Propose Fewer Grades of	Jan. 1	126
Castings Crack	Feb. 15	93
Describes Influence of	Feb. 15	103
Describes Trouble With Over-Poled	April 1	143
Gives Composition of Gases In	Nov. 15	47
Gives Data on Casting	July 15	85
Gives Effect of Additions to	Dec. 15	48
Ingots Swell	Oct. 1	93
Lead Alloy, Gives Furnace Practice for	Jan. 1	111
Oxide Eliminates Aluminum	Feb. 1	99
Substituted for Steel to Act as Core for Chills	Nov. 1	113
Will Not Mix, Cast Iron and	March 1	126
Wire, Explains Furnace Practice in Melting	Oct. 15	82
Spots in High Lead Alloy, Gives Cause of	July 1	103
Core		
Binder to Sand, Explains Addition of	Feb. 15	90
Binders, Compressive Strength of Cores Made by Various	Dec. 15	52
Boxes, Sand Sticks to	Dec. 15	63
Causes Blow Holes	March 1	124
Causes Blow, Jacket	Sept. 15	64
Causes Defect, Hard	July 15	74
Causes Gas Holes	Dec. 1	90
Causes Leak in Waterfront	Feb. 1	116
Causes Leaks in Valve Castings	June 15	62
Does Not Stand up	Nov. 1	108
Dryer, Makes Plaster of Paris	April 15	94
Explains Method of Eliminating Blow from Water Jacket	May 15	73
Explains Steel Penetration Into	April 15	91
Irons, Molds	July 15	82
Losses, Continuous Oven Reduces	Aug. 15	58
Machine Is Equipped With Ball Bearings	June 15	83
May Cause Defective Yoke Castings	Sept. 1	119
May Cause Trouble in Radiator Castings	Sept. 1	118
Mixture for Jacket Cores for Gasoline Engines, Gives	March 15	99
Mixtures for Malleable Castings, Gives	May 1	214
Mixtures for Steel Castings	July 1	112
Mixtures Used in Steel Foundries	June 15	45
Mixtures Vary	Sept. 1	117
Oil Specifications, Uniform Methods of Analysis Should Govern	Feb. 1	121
Oven Heater Has Automatic Control	Oct. 15	93
Oven Practice, Describes	Oct. 15	84
Ovens, Describes Various Types of	Oct. 1	94
Oven Installations at Studebaker Plant, Describes	Aug. 15	58
Plate Warps in Center	June 15	61
Practice For Bronze Bushings, Explains	Aug. 15	67
Prints Should Allow Easy Escape of Core Gases	Dec. 1	72
Resists Pressure	April 1	127
Room Practice, Describes Malleable	Dec. 1	66
Sand, Specifications Desired for Sandblast Sand	Oct. 1	90
Shifts Bend Posts	June 1	155
Shop Practice, Explains	July 1	109
Cores		
Aluminum Oxide	March 1	125
Cause Bushing Defect	Jan. 15	89
Cause Leaky Radiator Sections	Jan. 15	88

	Month	Page
Easily Made, Small	Nov. 1	107
For Aluminum and Silicon Bronze Castings, Describes	June 15	64
For Aluminum Castings, Gives Properties of	Dec. 15	52
For Bronze Bushings, Describes Coatings For	Oct. 1	93
For Bronze Castings, Molasses Water Is Used on	Sept. 15	65
For Cast Iron Pipe, Makes	Sept. 1	104
For Glass Molds, Gives Coating For	Feb. 15	90
For Malleable Iron Wing-Nuts Are Described	Sept. 5	66
For Universally Jointed Pipe, Makes	Nov. 15	42
Gives Core Mixture for Gasoline Engines, Jacket	March 15	99
In Continuous Ovens, Bake Cylinder Blocks	Dec. 15	56
Makes Special Pipe	Oct. 15	54
Rapidly, Gas-Fired Horizontal Oven Bakes	Feb. 15	68
Reinforce Columns of Concrete Buildings, Cast Iron	March 15	112
Stick in Casting	Aug. 15	67
Used for Anchoring Babbitt, Special	Sept. 15	83
Used in Casting Alloy Steel Chains, Oil Sand	June 1	159
Used in Permanent Molds, Describes	March 15	109
With Speed and Accuracy, Produces	July 1	88
Correct Lighting Increases Efficiency in the Foundry	Oct. 1	81
Correlation of Mechanical Tests Involves Many Difficulties—Part I	Oct. 15	62
Correlation of Mechanical Tests Involves Many Difficulties—Part II	Nov. 1	93
Corrosion Resistant Alloys, Properties of	Jan. 15	90
Corrosion, Study Fatigue and	July 15	66
Cost		
Accountants Hold Meeting	Oct. 1	97
Explains Reasons for Low	Aug. 1	88
Is Important Factor in Foundry Business	Nov. 1	114
Of Brass Castings, Discusses	Jan. 15	93
Of Construction Is Low	Oct. 15	90
Of Permanent Mold Operation, Gives	Jan. 1	104
Of Sand Mixtures With Same Bond Content	June 15	56
Systems Must be Applied Uniformly, Standardized	Oct. 1	88
System of Gray Iron Institute, Comments On	Jan. 15	102
Costs		
Briquetting Borings Reduces Gray Iron Melting	July 15	68
By Controlling Oil Sand Mixtures, Reduces	April 1	125
Casting Sale Price Determined by Foundry	Oct. 15	59
Four Major Divisions Decide Foundry	June 15	75
Of Synthetic Sand Mixture	Aug. 15	58
Pattern Design Influences Casting	Jan. 15	75
Part I, Unify Gray Iron	Jan. 15	69
Part II, Unify Gray Iron	Feb. 1	109
Part III, Unify Gray Iron	Feb. 15	81
Reduces Molding	July 15	85
Reports Progress on	June 1	131
Steel Foundrymen Should Study Pattern	Aug. 15	56
With a New Steel Foundry, Reduces Production	Dec. 15	44
Coulter Is Transferred to Office at Cleveland, A. S.	Aug. 15	86
Count Reflects Changes	Sept. 15	52
Courses, Express Views on Value of College Foundry	March 15	80
Crack, Chilled Rolls	Sept. 15	65
Crack, Copper Castings	Feb. 15	93
Cracked Bolster, Bill Prescribes for a	Oct. 15	87
Cracking in Aluminum-Alloy Castings, Discusses	Dec. 15	52
Cracks		
Chilled Roll	June 1	156
Chilled Sheave	Aug. 1	100
Defines Heat	Jan. 15	87
Gates Cause	Sept. 15	66
Hard Malleable Iron Shows	March 15	100
Crane Co., Celebrates Seventy-Fifth Anniversary	Aug. 1	109
Crane		
Has Ton Capacity, Variable Height	Dec. 15	82
Is Built For Heavy Duty Service	Oct. 1	119
Is Constructed of Fabricated Aluminum	Oct. 15	94
Turns in Short Radius, Electric	Sept. 1	128
Crucible In Brass Foundry, Uses Special	June 1	162
Crusher Jaw, Difficulty Is Encountered With White Iron	Oct. 15	80
Crusher Reclaims Core Sand	Aug. 15	84
Culverts Help to Keep Water Off Highways, Cast	Dec. 1	65
Cupola		
Charge for Producing Roll Castings, Gives	June 1	156
Charges Used to Produce White Iron	March 15	98
Dimensions, Determines	May 15	85
Explains Properties of Materials Used in Lining	Oct. 15	60
Gives Melting Practice on 62-inch	May 1	200
Gives Melting Rate of	Aug. 1	100
Has Slag Trouble	Dec. 15	63
Limestone Cleans	Jan. 1	109
Limestone Is Required to Flux	Feb. 15	90
Malleable, Gives Charges for	March 1	125
Malleable Iron, Gives Furnace Practice for Making	Feb. 1	117
Malleable Is Cast in Permanent Molds—Part I	March 1	104
Malleable Is Cast in Permanent Molds—Part II	March 15	109
Operating Data, Gives	Nov. 15	55
Operation, Explains Difficulty of Small	Dec. 15	64
Operation, Hot Iron Obtained by Economical	April 1	116
Pitfalls and Ways To Avoid Them	Dec. 1	85
Practice at Malleable Foundry, Explains	May 1	214
Practice For Iron For Wheels, Outlines	July 15	74
Practice For 32-Inch Cupola, Describes	Oct. 1	92
Practice for 48-Inch Cupola, Explains	May 1	202
Practice for Melting Steel Mixes, Explains	Jan. 1	108
Practice for Ring Blanks, Explains	June 15	63
Practice for Semisteel, Explains	July 1	106
Practice in Duplexing Process, Describes	May 15	61
Practice Is Bad	Aug. 1	98
Practice When Melting Borings, Describes	July 15	68
Practice Where Grate Bar Scrap Is Used, Explains	June 1	156
To Get Hot Iron, Explains Manipulation of	Sept. 1	118
Cupolas, Bill Talks Weapons And Small	Oct. 1	113
Cupolas, Shows Various Parts of	Nov. 1	101
Curve of a Cast Iron in Tension and Compression, Typical Stress-Strain	July 1	94
Curved Plate, Molds	June 15	50
Curves		
For Determining Percentages of Bond Material from the Hardness and Permeability Ratio Test, Shows	April 15	74
Indicate That the Stronger Irons Have a Higher Modulus of Elasticity	July 1	94
Show Tensile and Transverse Strength Relation to Ratio of Volume to Surface Area	April 1	111
Showing Drop in Modulus of Rupture and Tensile Strength of Gray Iron With Different Sized Bars	July 1	94
Showing Tensile, Stress-Strain Diagrams for Different Types of Cast Iron	April 1	111
Showing the Relationship Between the Percentage of Bond, Grain Size and Permeability	March 15	84
Cylinder		
Block Cores in Continuous Ovens, Bake	Dec. 15	56
Blocks, Describes Molding of	March 1	115
Blocks, Gives Analysis for Oil Engine	Sept. 15	66
Core Gives Trouble, Air Cooled	Nov. 1	108
Head Cover, Core Causes Blow Holes in	March 1	124
Head Mold, Details	Sept. 15	78
Head, Molds Automobile	Nov. 1	80
Mold Is Jolted on a Machine	Nov. 15	52
Mold, Iron Backs Out of Ammonia	Dec. 15	63
Molds	June 15	50
Cylinders Have Changed, Locomotive	Feb. 1	111
Czechoslovakia, Surveys Foundry Industry in	Sept. 1	98

D

	Month	Page
Data		
On Casting Copper	July 15	85
On Molybdenum Addition to Gray Iron	June 15	54
On Sand Mixtures, Gives Comparative	April 15	74
On Pipe Fittings, Gives	Feb. 1	117
Daubing Material, Gives Mixture for	Feb. 1	117
Davidson Elected Vice President, J. Frank	July 15	91
Death Rate Among Foundry Employes Is Low	Nov. 1	114
Deep Etching, Defects in Cast Brass Are Revealed by	July 1	92
Defects		
As Shown by X-ray, Lists	Feb. 15	76
In Cast Brass Are Revealed by Deep Etching	July 1	92
In Castings, Shows	Dec. 15	68
In Pipe Fittings, Explains	Dec. 1	66
In Piston Rings, Corrects	April 15	90
In Vises, Outlines Causes of	Oct. 15	81
Tracing the Cause of	June 15	75
Defines Heat Cracks	Jan. 15	87
Degasifying Agent, Discusses Aluminum as a	Feb. 15	104
Density of Cast Iron, Steel Increases	Oct. 15	79
Department of Commerce Publishes Survey of Gray Iron Foundries	Jan. 1	113
Deister Concentrator Co., Introduces New Type Foundry Screen	June 1	179
Deoxidizers, Explains Use of	Sept. 15	79
Deposit, Shows Strata of	Feb. 15	97
Design Determines Molding Method, Lamp Post	Dec. 1	82
Designing Permanent Molds, Gives Rules For	Jan. 1	104
Details Cylinder Head Mold	Sept. 15	78
Detroit Foundrymen's Association		
Hold Annual Outing	Aug. 15	63
Holds First Meeting of Fall Term	Oct. 1	115
Meets	April 1	149
Meets	Dec. 15	82
Device Avoids Scum	Sept. 15	79
Device Keeps Large Cores From Wabbling on Oven Car	Oct. 15	54
DeWalt Products Co. Places Electric Hand Saw on the Market	June 1	180
Die Casting		
Alloys, Gives	April 15	86
Alloys, Gives Standard	June 15	69
Plant, Control of Materials Features	June 15	69
Die, Face Is Not Smooth on Shovel	Dec. 15	64
Dies Used in Briquetting Machine, Gives Material Used in	July 15	68
Dimensions, Determines Cupola	May 15	85
Dip		
For Bronze Castings, Gives Constituents of Acid	April 1	130
Stains Castings	Sept. 15	69
To Remove Stain, Gives Constituents of	Dec. 15	66
Direct Metal Cannot Be Used in Foundries	April 1	127
Directors, American Foundrymen's Association Elects New	June 1	151
Dirty Castings, Sand Causes	Feb. 1	116
Dirty Mold Causes Dross	June 15	61
Diver, Bill Hears of Steel Casting for	June 15	76
Divide Foundry Duties	March 1	124
Dixon Crucible Co., Hold Meeting, Executives of Joseph	July 15	89
Dobbie Foundry & Machine Co., Takes Over Manufacturing of Cupola Charger	Nov. 1	113
Door		
Gives Information on Casting a Cast Iron	May 15	70
Stops Are Made of Cast Iron	May 15	49
Stops, Castings Are Used in the Construction of	April 1	103
Dowel Pins, Discusses Various Types of Flask	May 1	220
Dr. Richard Moldenke Is Dead	Dec. 1	99
Draws in Castings, Describes Molding Method to Eliminate	April 1	144
Drives for Screw Conveyors, Standardize	June 1	181
Driving Brasses, Describes Solidification of Locomotive	Feb. 1	118
Dross, Dirty Mold Causes	June 15	61
Dryers, Describes Portable	Oct. 1	94
Drying Temperature for Cores, Gives	July 1	109
Dry Sand Strength of Sand Mixtures, Gives Green and	April 15	74
Duplex Process, Makes Malleable Iron by	May 15	61
Duplexing Method, Many Companies Use	Oct. 15	89
Duquesne Light Co., Floodlighted With Aluminum Castings	Jan. 15	94
Durability of Bonding Material, Studies	Sept. 15	57

E

	Month	Page
Each Casting Becomes a Salesman	Nov. 15	74
Eastern Steel Castings Inc., Describes Cleaning Room of	April 15	64
Economical, Small Malleable Furnace Is Not	June 15	63
Economy		
In the Foundry—Part I, Sand Control Increases	March 15	84
In the Foundry—Part II, Sand Control Increases	April 15	74
In the Foundry—Part III, Sand Control Increases	May 15	56
In the Foundry—Part IV, Sand Control Increases	June 15	56
In the Foundry—Part V, Sand Control Increases	July 15	59
In the Foundry—Part VI, Sand Control Increases	Aug. 15	52
In the Foundry—Part VII, Sand Control Increases	Sept. 15	57
Editorial		
Abusing Iron Horse	Dec. 15	78
Accidents Low in Foundries	Nov. 1	114
Active Co-Operation Pays	Aug. 15	80
Advance in All Sectors	Nov. 1	114
All In the Same Boat	Jan. 15	102
Backing Up a Slogan	Nov. 15	76
Beware the Volume Stampede	June 15	80
Bound For a Hoss Trade	June 1	174
Building With Castings	Sept. 1	124
Buildings Are Cheap	Oct. 15	90
Came the Dawn	Dec. 1	100
Castings vs. Beams	July 15	86
Classifies Alloy Scrap	July 1	120
Clay in Sand	May 1	224
Coals to Newcastle	Feb. 15	108
Conditions Do Not Change	Jan. 1	128
Co-operating with Educators	March 15	114
Dr. Richard Moldenke	Dec. 1	100
Encourage Home Building	May 1	224
Fair Profit Necessary	Sept. 15	80
Good Men Waiting	Nov. 15	76
Government Views Gray Iron	Jan. 1	128
Green Pastures—A Mirage	Aug. 1	118
If in Doubt, It's Dirty	Jan. 1	128
Incentive Wages Surveyed	July 1	120
Increase Plant Facilities	Feb. 15	108
Increase Shows New Trend	April 15	98
Index Is Ready	Jan. 15	102
Investigates Specialties	Aug. 15	80
It Might Be Worse	July 15	86
Keep the Shop Clean	March 15	114
Let in the Light	June 1	174
Let the Good Work Continue	Sept. 1	124
Let's Get Acquainted	Sept. 15	80
Let's Get In Step	Jan. 15	102
Long Service Assured	Oct. 1	116
Machinery Goes Rural	June 15	80
Making Things Brighter	Oct. 15	90
Many Toys Are Cast	Dec. 15	78
Marking the Product	Nov. 15	76
Meet the Professors Half Way	April 15	98
More Light on Gates	Dec. 15	78
More Medals Wanted	Dec. 1	100
Not Dead!—Not Sleeping!	Oct. 1	116
Now Is the Time	March 1	138
Once Every Seven Years	Oct. 15	90
One to Go	April 1	146
Perpetuating Ignorance	April 1	146
Reciprocity or Coercion	May 1	224
Safety Enforcement Pays	Oct. 15	90
Salutations, Mr. Graduate!	June 15	80
Say What You Mean	Aug. 15	80
Selling in a Buyers' Market	Sept. 1	124
Should Broaden Vision	May 15	86
Should Get Together	Aug. 1	118
Simplify Ingot Specification	Feb. 1	130
Six Men and One	May 15	86
Spread the Work	Aug. 1	118
Stabilizing Sales	March 1	138
Steel Output Grows	July 1	120
Strange Bed-Fellows	March 1	138
Systematized Safety	Sept. 15	80
Tell Them What They Want	April 15	98
Thumbnail Business Foresight	Nov. 1	114
Time to Re-Vamp	Oct. 1	116
Watch Your Step	Feb. 15	108
When Castings Are Best	Nov. 15	76
Who Holds the Sack?	Feb. 1	130
Why Beat the Drums Slowly?	May 15	86
Educators and A.F.A. Should Co-operate	June 1	174
Educators Pave Way for Co-operative Effort	June 15	48
Efficiency of Seacoal, Calculates	July 15	59
Elasticity of Cast Iron, Discusses	May 1	209
Electric Cast Iron, Makes	Dec. 15	60
Electric Furnace		
Cast Iron Is Made in	Nov. 15	51
Cast Iron With Steel Mixture, Makes	April 15	89
Gives Power Consumption on	May 15	61
Melting Practice, Outlines	Feb. 15	107
Melts Gray Iron for Stove Plate in the	Aug. 1	88
Melts Steel in	April 1	118
Steel, Compares Methods For Producing	Feb. 1	100
Uses	July 15	73
Uses Fire Brick Roof in	Aug. 15	48
Electric Furnaces in the Foundry, Describes Uses of	March 15	113
Electric Hoist Manufacturers Association Elect Officers	April 15	103
Electric Steel For Casting, Comments on Production of	Feb. 15	103
Electrochemical Society Meets at Detroit	Oct. 15	74
Electrolytic and Lake Copper, Explains Difference Between	Oct. 15	82
Elements Effect Cast Iron Growth	Dec. 15	60
Elements in Cast Iron, Explains Effect of Various	Oct. 15	66
Elevator Is Driven by Reducer and Chain	March 15	116
Enameling Process Interfered With by Pinholes	July 15	77
Enamel Ware Castings, Gives Analysis for	April 1	144
End Housings for Motors, Difficulty Is Encountered in Making	Oct. 15	80
Engine Bed Castings, Gives Analysis of	Sept. 15	66
Engineering Foundation, H. H. Porter Re-elected Chairman of	April 1	119
Engineering		
Materials, Brass Castings Offer Economical	Jan. 15	93
Properties—Part I, Gray Iron Possesses Valuable	Feb. 1	94
Properties—Part II, Gray Iron Possesses Valuable	March 1	107
Properties—Part III, Gray Iron Possesses Valuable	April 1	111
Properties—Part IV, Gray Iron Possesses Valuable	May 1	209
Properties—Part V, Gray Iron Possesses Valuable	June 1	152
Properties—Part VI, Gray Iron Possesses Valuable	July 1	94
Properties—Part VII, Gray Iron Possesses Valuable	Aug. 1	110
Properties—Part VIII, Gray Iron Possesses Valuable	Sept. 1	94
Properties—Part IX, Gray Iron Possesses Valuable	Oct. 1	83
Properties—Part X, Gray Iron Possesses Valuable	Nov. 1	86
Properties—Part XI, Gray Iron Possesses Valuable	Dec. 1	76
Schools Require Foundry Practice Course	June 15	48
Equipment		
Developments Will Feature Great Foundry Show	May 1	188
Makers to Form Group	July 15	67
Used by Brass Molders, Describes	March 15	88
Erb-Joyce Foundry Co., Purchases Interest in	Dec. 15	76
Erie Steel Construction Co., Designs New Clamshell Bucket	Aug. 15	86
Erie Steel Construction Co., Introduces Motor Operated Clamshell Buckets	Sept. 15	83
Etching, Defects in Cast Brass Are Revealed by Deep	July 1	92
European Foundrymen Gather at Belgian Convention	Aug. 1	95
Examines Foundry Figures Graphically	Aug. 15	84
Exhibition Portrays Industry's Progress	June 1	142
Expansions in Gray Iron, Explains	Dec. 1	76
Explains Use of Deoxidizers	Sept. 15	79
Eyes of Workers, Mandatory Goggle Rule Protects	Oct. 1	112
Eyrich Wins Drawing Contest at Milwaukee, Ronald	Jan. 15	94

F

	Month	Page
Fabrication and Building Construction, Castings Aid in	Feb. 15	67
Faccioli Retires as Manager, Guiseppe	July 15	91
Facing		
Needs in a Foundry, Production, Sand Loss and	June 15	56
Sand for Bronze Tablets, Prepares	March 15	118
Sand for Matchplates Is Fine	Dec. 1	90
Sand for Tablets and Fine Brass Work, Describes	Sept. 15	69
Falcon Bronze Co. Elects Officers	Feb. 1	131
Falk Corp. Apprentices Receive Yearly Awards	March 15	83
Falk Corp. Makes Speed Reducers in Many Ratios	March 15	117
Farm Tools, Inc., Is Formed	Sept. 1	107
Farms Require Much Machinery	June 15	80
Fatigue		
And Corrosion, Study	July 15	66
Of Cast Iron, Discusses	Oct. 1	83
Tests, Gives Information on Short Time	July 15	70
Federal-Mogul Corp., Acquires Several Firms	Sept. 15	83
Feeding Methods, Sound Malleable Iron Castings Depend On	Oct. 1	76
Feeding, Needs Better	July 1	106
Fence Endures, Gray Iron Church	Aug. 15	74
Ferroalloys to Malleable Air Furnace, Explains Method of Adding	Aug. 1	100
Ferrostatic Pressure Reduces Foundry Scrap	Nov. 15	59
Figures Graphically, Examines Foundry	Aug. 15	44
Fillets Should Be Used on Aluminum Castings	Dec. 1	72
Finish on Roll, Allows for	Dec. 1	89
Finishes Aluminum Patterns	July 15	73
Finishes on Architectural Aluminum Castings, Secures Various	Sept. 1	90
Finishing Molds, Discusses Technique in	May 1	220
Fire Brick Roof in Electric Furnace, Uses	Aug. 15	48
Fire Pots Crack	Sept. 15	66
Fittings		
American Standards Association Develops New Standard for Pipe	Feb. 15	72
Dip Stains Brass	Sept. 15	69
Explains Defects in Pipe	Dec. 1	66
Gives American Water-Works Association Standard Specifications for Cast Iron Pipe and	April 1	120
Gives Data on Pipe	Feb. 1	117
Turn White	Nov. 15	62
Flame on Bronzes, Explains Action of	Aug. 1	84
Flange Casting, Sand Is Cause of Holes in	Dec. 1	88
Flanged, Pipe, Molds Curved	Sept. 1	112
Flasks For Textile Machinery Castings, Uses Special	Jan. 1	88
Flasks on Stripping Plate, Explains Method of Holding	Jan. 1	124
Flaws Due to Internal Shrinkage	March 1	123
Flexible Shaft Machines Have New Features	Sept. 1	127
Floodlighting With Cast Aluminum	Jan. 15	94
Floor Plates For Coke Plant, Desires	Feb. 1	114
Flux Cupola, Limestone Is Required to	Feb. 15	90
Flywheel Casting, Molds	July 15	82
Flywheel, Molds	Sept. 1	112
Fonderies et Forges de Crans, Description of Foundry of	March 1	121
Forehearth Is Advantageous	Nov. 15	55
Foremen Required, Bill Discusses the Number of	Feb. 1	123
Forks for Velocipedes, Describes Molding of	Oct. 1	76
Formulas		
For Controlling Pouring Speed, Gives	March 1	129
For Correlation of Test Data, Discusses	Sept. 1	94
For Grain Size and Screen Data, Gives	July 15	59
For the Estimation of Physical Properties of Gray Iron, Gives	Aug. 1	110
Gives Brinell	Nov. 1	86
Founders See Pickup in Last Quarter, Steel	July 15	56

	Month	Page
Foundries		
Adopt Standards, Pacific	June 1	193
Control System Is Applied Easily to	Aug. 15	71
In Cleveland, Representative	May 1	174
Should Install New Equipment	Oct. 1	116
Stabilize Business? How Can Brass	April 1	109
Study Use of Scrap in Steel	Dec. 15	82
Supply Castings for Diversified Industries, Cleveland	May 1	168
Foundry		
Art Bronzes Cast in Chicago	Feb. 1	112
Bill Reads a Story about a	March 15	102
Budget Directs Operating and Sales Efforts, A	Nov. 15	53
Casts Alloy Steel, New	Sept. 15	61
Casts Silicon-Aluminum Alloy, French	March 1	121
Cleanliness Is Pride of an Ohio Gray Iron	Nov. 1	80
Concentrates on Special Pipe Shapes, Southern	Oct. 15	54
Conference, University of Wisconsin Plans	Feb. 1	134
Correct Lighting Increases Efficiency in the	Oct. 1	81
Costs, Casting Sale Price Determined by	Oct. 15	59
Costs, Four Major Divisions Decide	June 15	73
Count Reflects Changes	Sept. 15	52
Education, Expresses Opinions On	April 15	93
Equipment Needs, Comments on	March 1	138
Figures Graphically, Examines	Aug. 15	44
Flourishes in the Orient, Modern	March 15	91
Groups Hear British Expert	May 15	80
In Rhodesia, Discover Ancient	Oct. 15	78
Industry, Complexities Confront the Steel	July 15	52
Industry Greets Graduates	June 15	80
Industry in Czechoslovakia, Surveys	Sept. 1	98
Industry Needs The Technician, Believe It or Not—The	Oct. 1	109
Ingenuity, Large Aluminum Spheres Taxes	Feb. 1	103
Jobbing Shop Emulates Production	Oct. 15	71
Losses, Gives Percentage of Gray Iron	May 15	72
Makes Textile Machinery Castings in a New	Jan. 1	88
Makes Wagon Skeins, Malleable	May 1	214
Mechanization, Discusses	Feb. 15	107
Organization, Describes	Jan. 15	100
Part I, Sand Control Increases Economy in the	March 15	84
Part II, Sand Control Increases Economy in the	April 15	74
Part III, Sand Control Increases Economy in the	May 15	56
Part IV, Sand Control Increases Economy in the	June 15	56
Part V, Sand Control Increases Economy in the	July 15	59
Part VI, Sand Control Increases Economy in the	Aug. 15	52
Part VII, Sand Control Increases Economy in the	Sept. 15	57
Practice—Part V, American Brass	Feb. 15	73
Practice—Part VI, American Brass	March 15	88
Practice—Part VII, American Brass	April 15	69
Practice, Comments on Ignorance of	April 1	146
Practice, Delves Into Fundamentals of	Jan. 1	87
Practice—Part I, Fundamentals of	Jan. 1	94
Practice—Part II, Fundamentals of	Jan. 15	81
Practice—Part III, Fundamentals of	Feb. 1	105
Practice—Part IV, Fundamentals of	Feb. 15	97
Practice—Part V, Fundamentals of	March 1	134
Practice—Part VI, Fundamentals of	March 15	93
Practice—Part VII, Fundamentals of	April 1	131
Practice—Part VIII, Fundamentals of	April 15	80
Practice—Part IX, Fundamentals of	May 1	220
Practice—Part X, Fundamentals of	May 15	65
Practice—Part XI, Fundamentals of	June 1	163
Practice—Part XII, Fundamentals of	June 15	50
Practice—Part XIII, Fundamentals of	July 1	109
Practice—Part XIV, Fundamentals of	July 15	82
Practice—Part XV, Fundamentals of	Aug. 1	90
Practice—Part XVI, Fundamentals of	Aug. 15	61
Practice—Part XVII, Fundamentals of	Sept. 1	112
Practice—Part XVIII, Fundamentals of	Sept. 15	70
Practice—Part XIX, Fundamentals of	Oct. 1	94
Practice—Part XX, Fundamentals of	Oct. 15	66
Practice—Part XXI, Fundamentals of	Nov. 1	101
Practice—Part XXII, Fundamentals of	Nov. 15	55
Practice—Part XXIII, Fundamentals of	Dec. 1	96
Practice—Part XXIV, Fundamentals of	Dec. 15	67
Practice—Part I, Strong Aluminum Castings Are Obtained by Improved	Dec. 1	72
Practice—Part II, Strong Aluminum Castings Are Obtained by Improved	Dec. 15	52
Practice Used in the Manufacture of Cast Iron Toys	March 15	74
Reduces Production Costs With a New Steel	Dec. 15	44
Specializes in Railroad Castings, Steel	June 15	42
Specializes in Railroad Castings, Steel	July 1	113
Technique, Speaks on	April 15	86
Training for Engineering Students, Comment on	June 15	48
Training? Should Schools Teach Engineers Foundry Practice?	March 15	80
Foundry Equipment Co., Cleveland, Acquires Oven Division of Swartwout Co., Cleveland	Jan. 15	108
Foundry Equipment Manufacturers Association Adopts Development Plans	May 1	223
Foundry Equipment Manufacturers Association Holds Meeting	July 15	67
Foundrymen		
Cast Variety of Alloys—Part V, British	Jan. 1	121
Cast Variety of Alloys—Part VI, British	Jan. 15	90
Gather at Belgian Convention, European	Aug. 1	95
Maintaining Price for Castings	March 1	138
Should Study Pattern Costs, Steel	Aug. 15	56
Study Industry's Technical Problems, British	July 15	71
Where Are the Young	Sept. 15	73
Four Major Divisions Decide Foundry Costs	June 15	73
Frank Dies, Isaac W.	Dec. 15	80
Franklin Core Rod & Gagger Co. Makes Gagger With Triangular Section	Dec. 1	106
French Founders Hold Election of Officers	June 1	150
Freund Has Article in Harper's, C. J.	May 15	88
Fried. Krupp Aktiengesellschaft Observes Seventy-fifth Anniversary	Aug. 15	55
Fumes, Describes Partition for Protection Against Zinc	July 15	48

	Month	Page
Fundamentals of Foundry Practice		
Part I	Jan. 1	94
Part II	Jan. 15	81
Part III	Feb. 1	105
Part IV	Feb. 15	97
Part V	March 1	134
Part VI	March 15	93
Part VII	April 1	131
Part VIII	April 15	80
Part IX	May 1	220
Part X	May 15	65
Part XI	June 1	163
Part XII	June 15	50
Part XIII	July 1	109
Part XIV	July 15	82
Part XV	Aug. 1	90
Part XVI	Aug. 15	61
Part XVII	Sept. 1	112
Part XVIII	Sept. 15	70
Part XIX	Oct. 1	94
Part XX	Oct. 15	66
Part XXI	Nov. 1	101
Part XXII	Nov. 15	55
Part XXIII	Dec. 1	96
Part XXIV	Dec. 15	67
Furnace		
Atmosphere, Explains Effect of	Nov. 15	47
Atmosphere May Cause Shrinkage, Reducing	Aug. 1	84
Atmosphere on Nonferrous Metals, Effect of	Dec. 15	40
Builds Small Malleable	June 15	63
Cast Iron Is Made in Electric	Nov. 15	51
Describes Operation of Brackelsberg	Jan. 15	100
Gives Power Consumption on Electric	May 15	61
Leg Core Lacks Vent	May 1	201
Melting Practice, Outlines Electric	Feb. 15	107
Melts Gray Iron for Stove Plate in the Electric	Aug. 1	88
Melts Steel in Electric	April 1	118
Operation, Describes Method of Cupola	Dec. 1	85
Practice for Alloys Used in Making Ornamental Brass Work, Explains	Aug. 1	103
Practice for Brass Fittings, Explains	Nov. 15	62
Practice for Bronze, Outlines Reverberatory	Aug. 15	78
Practice for Copper Alloy for Pressure Castings, Explains	Nov. 15	62
Practice for Copper Lead Alloy, Gives	Jan. 1	111
Practice for 88-10-2 Alloys, Explains	Dec. 15	66
Practice for Making Malleable Iron, Explains	Feb. 1	117
Practice for Melting Borings, Explains	June 15	64
Practice for Melting German Silver, Explains	Jan. 15	89
Practice for Melting High Steel Mixes, Explains	Jan. 1	112
Practice for Melting Light Alloys, Explains	Nov. 15	67
Practice for Melting White Iron, Describes	March 15	98
Practice for Metal for Locomotive Boiler Plugs, Explains	Mar. 15	101
Practice for Phosphor Bronze, Explains	Oct. 15	92
Practice for Producing Electric Furnace Steel, Explains	Feb. 1	100
Practice, Outlines Electric	Dec. 15	60
Practice When Melting Copper Wire, Describes	Oct. 15	82
Theory, Discusses	June 15	79
Uses Electric	July 15	73
Uses Fire Brick Roof in Electric	Aug. 15	50
Uses Powdered Fuel, Rotary French	Nov. 15	79
Furnaces		
Are Fired With Two Oil Burners, Brass Melting	Nov. 1	92
Consider Melting	June 1	139
Explains Melting Practice on Basic Open-Hearth	June 15	42
From the Top, Heat Malleable Annealing	Jan. 15	88
In the Foundry, Describes Uses of Electric	March 15	113
Outlines Melting Practice for Reverberatory Nonferrous	Sept. 15	59
Used for Melting Non-Ferrous Alloys, Describes	Sept. 1	108

G

	Month	Page
G. & C. Foundry Co., Description of	Nov. 1	80
Gage Standards Are Recommended	July 15	70
Gages, Double-End Blades Used in Radius	Sept. 15	83
Gagger, Develops New	Dec. 1	106
Gaggers, Describes Use of	April 1	131
Gaggers in Molds, Explains Use of	April 15	80
Gas		
Analysis Is Desirable in Melting Non-Ferrous Alloys	Sept. 1	108
Causes Shell on Wheel, Steam or	Jan. 1	110
Consumption in Various Types Core Ovens, Discusses	Dec. 15	56
Engine Cylinder Is Jolted on a Machine	Nov. 15	52
Engineering, University of Illinois Will Hold Course in	June 1	180
Fired Horizontal Oven Bakes Cores Rapidly	Feb. 15	68
In Copper, Gives Composition of	Nov. 15	47
Pockets in Phosphor Bronze Castings, Outlines Method for Eliminating	May 1	203
Used for Cutting Heads and Risers, Natural	July 1	113
Gas Products Association Elects Officers	Nov. 1	116
Gasoline Pump Castings Vary in Weight	Oct. 1	90
Gasoline Stove Castings, Gives Melting Data on Brass	Aug. 15	67
Gate Cutter, Explains Use of	March 15	93
Gate Molds From Bottom	Jan. 1	104
Gated at Heavily Stressed Sections, Aluminum Castings Should Not Be	Dec. 1	72
Gated Improperly, Casting Is	Dec. 15	65
Gates		
Bill Goes on a Trip Among the	Dec. 1	93
Cause Cracks	Sept. 15	66
Discusses Various Kinds of	Dec. 1	96
Gating		
Discusses Methods of	March 15	93
In Bronzes and Red Brass, Explains	Dec. 15	48
Methods On Malleable Iron Castings, Describes	Oct. 1	76
Of Aluminum Castings, Discusses	Dec. 15	52
Of Brass Castings, Explains	March 15	88

	Month	Page
Of Malleable Castings, Explains	Sept. 1	119
Of Mine Car Wheel, Describes	Feb. 15	92
Of Nonferrous Castings, Describes	Feb. 15	73
Series in the Foundry Is Discussed	Dec. 15	78
Gear		
Blank, Bill Explains Sweeping of a	Sept. 15	75
Blanks Centrifugally, Casts	Aug. 15	78
Blanks Poured in Spinning Steel Molds, Bronze	Sept. 15	59
Castings, Describes Molding of	June 15	50
Castings, Describes Various Methods of Producing	Aug. 15	61
Gives Metal Mixtures for Semi-Steel	Nov. 1	106
Teeth Break	July 1	107
Structure Varies	Jan. 15	86
Wheels, Gives Analysis of	March 1	123
Gears, Gives Metal Mixtures for Bronze	April 15	92
General Electric Co.		
Designs Brazing Equipment Which Uses Resistance Principle	Aug. 15	85
Introduces Fan Cooled Totally Enclosed Motor	Dec. 1	105
Introduces New Motor	Dec. 15	81
Introduces Thermostat	Aug. 1	121
Makes New Trip Free Circuit Breakers	April 15	102
General Electric X-Ray Corp. Describes Industrial Uses of X-rays	Nov. 15	74
General Steel Castings Corp. Buys Two Plants	Jan. 1	132
German		
Founders Discuss Pig Iron Containing Aluminum	Oct. 15	69
Melting Practice, Speaks on	Jan. 15	100
Silver Castings, Gives Metal Mixture for	Jan. 15	89
German Iron Founders' Association Meets at Eisenach, Germany	Oct. 15	69
Glancy Malleable Corp. Changes Ownership	Dec. 15	76
Gland Casting, Molding Sand Causes Pinholes in	Feb. 1	117
Glass Molds, Gives Coating Used for Cores in	Feb. 15	90
Goggle Fits Over Regular Spectacles, Safety	Oct. 1	119
Goggle Rule Protects Eyes of Workers, Mandatory	Oct. 1	112
Goggles For Eyes Saved, Report Credits	Oct. 15	92
Goostray Rounds Out 50 Years With One Company, Job	Dec. 15	80
Grain		
Of Aluminum Alloys, Refines	Nov. 15	75
Size and Permeability, Curves Showing the Relationship Between the Percentage of Bond	March 15	84
Size on Permeability, Effect of	Jan. 15	100
Grains, Calculates Number of Sand	July 15	59
Grains Per Gram of Molding Sand, Gives Number of	May 15	56
Graphically, Examines Foundry Figures	Aug. 15	44
Graphite Formation, Explains Theory Underlying Fine	Oct. 15	62
Graphite Formation, Study Effect of	Jan. 15	100
Grate Bar Mixture, Gives	Aug. 15	64
Grate Bar Scrap, Uses	June 1	156
Grate Bars, Mixture for	June 15	62
Grate Bars, Mottled Fracture Is Best for	Aug. 1	99
Gray Iron		
Long Heating Periods at High Temperature Affect	Oct. 1	103
Carbon Is Controlled in Synthetic	Nov. 15	51
Castings Production, Increase of	April 15	98
Castings, Should Not Cut Prices on	June 1	141
Church Fence Endures	Aug. 15	74
Costs—Part I, Unify	Jan. 15	69
Costs—Part II, Unify	Feb. 1	109
Costs—Part III, Unify	Feb. 15	81
For Stove Plate in the Electric Furnace, Melts	Aug. 1	88
Foundry, Cleanliness Is Pride of an Ohio	Nov. 1	80
Foundry Losses, Gives Percentage of	May 15	72
Handle on Brass Rod, Attempts to Cast	Oct. 1	91
May Have Industrial Application, Hardening	Dec. 15	74
Melting Costs, Briquetting Borings Reduces	July 15	68
Metallurgy, Study	June 1	130
Molybdenum Improves	June 15	54
Possesses Valuable Engineering Properties—Part I	Feb. 1	94
Possesses Valuable Engineering Properties—Part II	March 1	107
Possesses Valuable Engineering Properties—Part III	April 1	111
Possesses Valuable Engineering Properties—Part IV	May 1	209
Possesses Valuable Engineering Properties—Part V	June 1	152
Possesses Valuable Engineering Properties—Part VI	July 1	94
Possesses Valuable Engineering Properties—Part VII	Aug. 1	110
Possesses Valuable Engineering Properties—Part VIII	Sept. 1	94
Possesses Valuable Engineering Properties—Part IX	Oct. 1	83
Possesses Valuable Engineering Properties—Part X	Nov. 1	86
Possesses Valuable Engineering Properties—Part XI	Dec. 1	76
Gray Iron Institute		
Adds Members	July 1	122
Adds Ten New Members	Aug. 15	81
Adds Six New Members	Oct. 15	75
Adopts a Slogan	Nov. 15	76
Appoints Committees	Jan. 1	133
Appoints Nominating Committee	Oct. 1	89
Changes Convention Date	Aug. 15	81
Cost System, Explains	Jan. 15	69
Elects New Officers	Nov. 1	89
Formed, Buffalo Chapter of	June 1	175
Has Eight New Members	May 1	199
Holds Meeting at Cleveland	June 1	141
Merchandising Committee Wants Cost Information	Oct. 1	102
Names Convention Speakers	Oct. 1	80
Organized, Chicago Chapter of	April 15	73
Points to Future Work	Nov. 1	89
Schedules Meetings	Jan. 15	85
Secures Cost Experts	Nov. 1	89
To Add Research Man	May 1	219
Gray Irons, Explains Structure of High Phosphorus	June 1	152
Great Lakes Chemical Works Starts Brass Foundry	Aug. 1	109
Green and Dry Sand Strength of Sand Mixtures, Gives	April 15	74
Green Sand, Annealing Boxes Difficult to Cast in	Sept. 1	119
Greiner and Klingenstein's Diagram Showing Relation Between Section Thickness and Silicon Plus Carbon	Aug. 1	112
Grinder		
And Sander Is Air Driven	July 15	88
Combination Disk and Production	Feb. 1	135
For Metal Pattern Work, Designs New	March 15	117
Has Safety Feature, Production	June 15	82
Introduces Air-Driven, Portable	April 15	102
Is Adapted to Close Quarters	June 15	83
Is Equipped With Ball Bearings	June 1	179
Is Light Weight	June 1	181
Operates at Constant Speed	Dec. 15	81
Grinders		
Designs New	March 15	116
Guard Controls Speed of New	Aug. 1	121
Have Induction Motors, Electric	Dec. 1	105
Introduces Portable Air	July 1	124
Growth, Elements Effect Cast Iron	Dec. 15	60
Growth of Cast Iron, Describes	March 1	107
Gun		
Iron, Air Furnace Is Used in Manufacture of	Oct. 15	80
Iron, Explains Method of Manufacture	June 15	63
Metal, Phosphorus Affects	Oct. 15	84

H

Hammond Machinery Builders, Inc.		
Designs Motor for Grinder	Sept. 15	82
Introduces Constant Speed Grinder	Dec. 15	81
Makes Combination Disk and Production Grinder	Feb. 1	135
Harbison-Walker Refractories Co. Publishes Book on Refractories	Feb. 15	111
Handle Does Not Hold	Oct. 1	91
Hard		
Core Is Cause	July 15	74
Iron Shows Cracks	March 15	100
Spots, Pig Iron Containing High Titanium Oxide Eliminates	April 1	143
Hardening Gray Iron May Have Industrial Application	Dec. 15	74
Hardness and Bond of Sand Mixtures, Gives Data on	April 15	74
Hardness Numbers Gives Relationships Between	Sept. 1	125
Harnischfeger Corp. Introduces Heavy Crane	Oct. 1	120
Head Used on Roll Casting, Describes	April 1	128
Heat		
Castings Resist	Sept. 15	65
Cracks Are Small	Jan. 15	87
Resisting Irons, Gives Analysis of	May 1	200
Runs Nine Hours	Oct. 1	92
Heat Treatment		
Determines Properties of Manganese Steel	Sept. 1	102
Lists Physical Properties of Manganese Carbon Steel According to	Jan. 1	100
Of Chrome Nickel Steel	Jan. 15	71
Of Chrome Steel	Jan. 15	71
On Properties of Alloy Steel Castings, Effect of	Jan. 15	71
On Properties of Manganese, Chrome, Nickel, Molybdenum Steel, Effect of	Jan. 15	71
Relieves Castings Strains in Gray Iron Castings	Nov. 15	61
Heat Treats Cast Iron	Aug. 15	78
Heat Treats Light Alloys	Nov. 15	67
Heater, Markets Electric	Sept. 1	127
Helmet Is Made of Rubber, Sand Blast	Dec. 1	105
Henderson County Historical Society Honors Kentucky Pioneers	Nov. 15	65
Hercules Powder Co., Elects Officers	April 15	103
High Grade Cast Iron Produced By Large Steel Scrap Additions	Jan. 1	112
High Strength Irons Poured in Regular Practice, Gives Various	April 1	111
High Test Gray Iron, Gives Mixture for	Dec. 1	88
Hisey-Wolf Machine Co. Introduces New Line of Heavy Duty Portable Grinders	Dec. 1	105
History of Alabama Cast Iron Pipe Industries, Gives	March 1	98
Hoist Designs New Electric	Jan. 1	132
Is Constructed Simply, New Electric	June 1	180
Is Equipped With Electric Motor	Aug. 1	122
Is Small, New	Aug. 1	120
Holes Interfere, Small	July 15	77
Hollowell Dies, James M.	Dec. 1	103
Horn Sprues Made on Job	Aug. 1	99
Hot		
Blast Cupola, Few Foundries Use	July 15	73
Iron, Explains Manipulation of Cupola to Secure	Sept. 1	118
Iron Obtained by Economical Cupola Operation	April 1	116
Sand Sticks to Matchplate	June 1	155
Housing, Molds Centrifugal Pump	Sept. 15	70
How Can Brass Foundries Stabilize Business?	April 1	109
How We Secured Safety	Jan. 15	92
Hub Castings, Describes Molding of Automobile	Oct. 1	76
Hudson Appointed Secretary of New England Council, Ray M.	Jan. 15	107
Hydrant Foot Castings, Explains Molding of	Jan. 15	87
Hydraulic Feed, Introduces Low Pressure	Aug. 15	83

I

Illinois Testing Laboratories Designs Thermocouples For Brass Foundries	Aug. 15	82
Illinois Testing Laboratories Places New Pyrometer Equipment on the Market	Oct. 1	119
Imagination Builds Business in Cast Iron Toys	March 15	74
Impact Tests of Cast Iron, Discusses	Oct. 1	83
Impurities on Cast Iron, Explains Influence of	Feb. 15	91
Impurities on Sand, Explains Effect of	Jan. 1	94
Incipient Shrinkage, Explains Meaning of	Aug. 1	84
Increased Volume to Reduce Costs Is a Fallacy	June 15	80
Independent Pneumatic Tool Co., Introduces Portable Air Grinders	July 1	124

	Month	Page
Indiana Sands, Publication Describes	May 15	87
Indianapolis Foundrymen's Association Elects Officers	March 1	142
Indicators, Describes Construction of Air Volume	Feb. 15	107
Induction Furnace Practice, Describes	April 1	118
Induction Motor Is Air Cooled by Fan	March 15	116
Industrial Application, Hardening Gray Iron May Have	Dec. 15	74
Industrial Equipment Co. Introduces New Ladle Gear Mechanism	Sept. 15	83
Industrial Silica Corp., Description of Laboratory of	May 15	81
Industries, Cleveland Foundries Supply Castings for Diversified	May 1	168
Industry Awaits Opening	May 1	176
Industry, the Laboratory Races Ahead of	Dec. 15	69
Industry's Employment of Scientists, Comments On	Jan. 1	128
Influence of Fine Sand Particles, Shows	April 15	74
Information May Be Misconstrued, Faulty Wording of	Aug. 15	80
Ingersoll-Rand Co. Compressor is Equipped With Ball Bearings	Feb. 1	135
Ingersoll-Rand Co., New York, Introduces New Type of Chipping Hammer	Jan. 1	132
Ingot		
Mold Defects, Plugged Vents Cause	Jan. 1	110
Molds, Gives Metal Mixture for	April 15	90
Molds, Makes	June 15	62
Specifications, Comments on Copper Alloy	Feb. 1	130
Trouble, Overcome Alloy	Aug. 15	60
Insert Causes Blow, Rust on Iron	Oct. 15	82
Inserts Should Be Clean	Dec. 1	88
Inspection, Pipe Requires Rigid	Aug. 15	72
Institute of British Foundrymen		
Addressed by Dr. Siegfried G. Werner	April 15	103
Hold Annual Convention	July 15	71
Meets, Birmingham Branch of	Feb. 15	88
Will Hold Convention at Middlesbrough	June 1	175
Institute of Metals Holds Meeting in London	April 15	84
Institute of Scrap Iron and Steel Reports on Scrap Usage	Dec. 15	82
Intergranular Embrittlement May Cause Unusual Structure	July 1	107
International Committee Plans Future Congresses	Aug. 1	97
International Molding Machine Co. Publishes Catalog	March 15	115
International Nickel Co. Inc., Issues Catalog on Uses of Nickel Cast Iron	Feb. 15	112
Investigations on Cast Iron Tests, Explains	Oct. 15	62
Iodine Numbers of Core Oils and Their Constituents	Feb. 1	121
Iron		
Backs Out of Mold	Dec. 15	63
Becomes Hard	July 1	107
Blows from Rods	Oct. 15	80
Borings, Describes Methods for Melting	April 15	89
Carbon Is Controlled in Synthetic Gray	Nov. 15	51
Castings Depend on Feeding Methods, Sound Malleable	Oct. 1	76
Causes Specks in Aluminum Yellow Brass Castings	April 15	92
Church Fence Endures, Gray	Aug. 15	74
Costs—Part I, Unify Gray	Jan. 15	69
Costs—Part II, Unify Gray	Feb. 1	109
Costs—Part III, Unify Gray	Feb. 15	81
Data, Wants White	May 15	69
Describes Method of Adding Alloy to	May 15	69
Describes Method of Producing Malleable Cast	Feb. 15	92
Explains Causes of Hard	July 1	107
Explains the Effect of Nickel on Cast	March 15	113
First, Melt White	March 15	98
For Permanent Molds, Gives Mixture For	June 1	157
For Stove Plate in the Electric Furnace, Melts Gray	Aug. 1	88
Foundry, Cleanliness Is Pride of an Ohio Gray	Nov. 1	86
Gives Analysis of Chilled	Jan. 1	109
Gives Properties of Non-Magnetic	Jan. 15	90
Gives Pouring Temperature of Gray	Feb. 1	117
Growth, Elements Effect Cast	Dec. 15	66
Has Detrimental Effect on Nonferrous Castings	Oct. 15	75
Heat Treats Cast	Aug. 15	78
In Nonferrous Alloys, Describes Effect of	April 15	69
In Various Processes, Explains Solidification of Cast	Feb. 15	107
Investigates Acid Solubility of Various Types of Cast	Jan. 15	100
Is Not Hot Enough	Sept. 1	118
Is Oxidized	July 15	74
Is Poured Too Cold	April 1	128
Is Soft	Oct. 15	80
Is Used in Nonferrous Alloy	Feb. 15	73
Long Heating Periods at High Temperatures Affect Gray Cast	Oct. 1	103
Makes Electric Cast	Dec. 15	60
Melting Costs, Briquetting Borings Reduces Gray	July 15	68
Melts Continuously	Dec. 15	64
Mixture for Malleable Castings, Gives	May 15	73
Molds Expand	Oct. 15	79
Molybdenum Improve Gray	June 15	54
Not Duplexed, Small Amounts of	July 15	73
Obtained by Economical Cupola Operation, Hot	April 1	116
Pipe, Alabama Makes 65 Per Cent of Nation's Cast	March 1	98
Possesses Valuable Engineering Properties—Part I, Gray	Feb. 1	94
Possesses Valuable Engineering Properties—Part II, Gray	March 1	107
Possesses Valuable Engineering Properties—Part III, Gray	April 1	111
Possesses Valuable Engineering Properties—Part IV, Gray	May 1	209
Possesses Valuable Engineering Properties—Part V, Gray	June 1	152
Possesses Valuable Engineering Properties—Part VI, Gray	July 1	94
Possesses Valuable Engineering Properties—Part VII, Gray	Aug. 1	110
Possesses Valuable Engineering Qualities—Part VIII, Gray	Sept. 1	94
Possesses Valuable Engineering Properties—Part IX, Gray	Oct. 1	83
Possesses Valuable Engineering Properties—Part X, Gray	Nov. 1	86
Possesses Valuable Engineering Properties—Part XI, Gray	Dec. 1	76
Pot Resists Acid	Jan. 15	86
Produced By Large Steel Scrap Additions, High Grade Cast	Jan. 1	112
Silicon Alloys, Discusses	July 15	85
Surveys High Duty Cast	May 15	85
To Brass Mixture, Explains Method of Adding	May 15	74
Toys, Imagination Builds Business in Cast	March 15	74
Iron Trade Review Changes Name to Steel	July 1	97
Irons		
Compares Malleable	July 15	85
Discusses Pearlitic Cast	May 15	85
Explains Structure of High Phosphorus Gray	June 1	152
Gives Properties of High Chromium	May 1	200
Poured in Regular Practice, Gives Various High Strength	April 1	111
Itinerary of J. G. Pearce, Gives	April 15	103

J

Jacket Core Causes Blow	Sept. 15	64
Jacket Cores, Gives Core Mixture for Gasoline Engines	March 15	99
Jackling Loan Fund Established at Missouri School of Mines and Metallurgy	May 15	87
Jacks to Lift Heavy Loads, Castings Are Used in	Nov. 1	79
Jobbing Molding, Comments on	April 15	86
Jobbing Shop Emulates Production Foundry	Oct. 15	71
Joints In Molds, Discusses	March 15	93
Jones Foundry & Machine Co., Chicago, Celebrates Fortieth Anniversary, W. A.	Feb. 1	122

K

Kay-Brunner Steel Castings Co. and Kay Steel Wheel Co. Merge	Feb. 1	132
Keel Molding, Bill Gets a Hot Tip on	May 15	82
Keel Question, Bill Again Brings Up The	July 1	117
Kentucky Pioneers, Tablets Honor	Nov. 15	65
Kitchenware Cast in Permanent Molds, Aluminum	Oct. 1	86
Kling Bros. Engineering Works Introduces New Type Grinders	Aug. 1	121
Klingenstein's Study of 2000 Tests in an Esslingen Foundry	Aug. 1	110

L

Labor Problems in Various Countries, Discusses	Feb. 15	107
Laboratory, Sand Producer Installs	May 15	81
Lacquer for Coating Patterns, Use	July 1	105
Ladle Gear, Roller Bearings Used on	Sept. 15	83
Ladles		
Are Hard to Dry, Bill Says Hand	June 1	169
Castings Are Used in Construction of	Dec. 15	43
Explains Uses for Different Types of	Dec. 1	96
Outlines Method for Lining	Aug. 1	98
Lamp Posts Bend, Explains Why	June 1	155
Lamps Recommended For Foundry Lighting, Explains Class of	Oct. 1	81
Lake Copper, Explains Difference Between Electrolytic and	Oct. 15	82
Lakey Foundry & Machine Co., Description of Plant	Feb. 15	68
Lakey Foundry & Machine Co., Gives Description of	March 1	115
Lamp Post Castings Must Cool Uniformly	Aug. 15	68
Lamp Post Design Determines Molding Method	Dec. 1	82
Lancastrians Hold Banquet at Liege Convention	Aug. 1	96
Large Aluminum Spheres Taxes Foundry Ingenuity	Feb. 1	103
Lathe Bed, Molds	Sept. 15	70
Lathe Beds Cast With Camber	Nov. 15	61
Lawnmower Castings, Gives Analysis of	April 15	89
Lawnmower Castings, Improves Toughness in	Aug. 15	65
Layout		
Aids Nonferrous Production	July 15	48
Board, Describes Special	July 1	113
Of Briquetting Machine, Describes	July 15	68
Lead		
Affects Brass and Bronze	Sept. 15	79
Alloy, Gives Cause of Copper Spots in High	July 1	108
Alloys, Silicon Is Not Wanted in High	Oct. 15	75
On Manganese Bronze Describes Effect of	March 15	113
Pressure Castings, Gives Core Practice For	June 15	64
Lebanon Steel Foundry, Description of	Dec. 15	44
Let Apprentices Sell Apprenticeship—Part I	Feb. 15	84
Let Apprentices Sell Apprenticeship—Part II	March 1	111
Levering Bros., Baltimore, Closes Old Shop	Jan. 1	99
Letters on Brass Casting, Describes Method For Securing Sharp	Oct. 1	93
Lewis Is Dead, Wilfred	Feb. 1	134
Lidgerwood Pacific Co., Describes Foundry of	Aug. 15	48
Life of Permanent Molds, Gives	Jan. 1	104
Lift-Truck Includes Safety Features	Oct. 1	119
Light Alloy Pistons Are Cast In Permanent Molds	Nov. 15	67
Lighting Increases Efficiency in the Foundry, Correct	Oct. 1	81
Lights the Cupola	Nov. 1	101
Limestone Cleans Cupola	Jan. 1	109
Limestone Is Required to Flux Cupola	Feb. 15	90
Liner Plate Warps in Cooling	Oct. 1	90
Liners, Molds Bronze	April 1	130
Liners, Molds Pump	Sept. 1	120
Lining Cupola, Explains Properties of Materials Used in	Oct. 15	66
Lining Ladles, Outlines Method for	Aug. 1	98

	Month	Page
Link-Belt Co.		
Designs New Variable Speed Transmission	Dec. 15	81
Designs Pillow Block	Aug. 1	122
Will Make Chains From New Metal	Aug. 1	122
Litharge Mixtures Used For Making Matchplates	June 1	157
Loam, Describes Molding in	Feb. 15	97
Locomotive		
Boiler Plugs, Gives Metal Mixture For	March 15	101
Cylinders Have Changed	Feb. 1	111
Driving Brasses, Describes Solidification of	Feb. 1	118
Long Beds Warp in the Mold	Feb. 1	126
Long Heating Periods at High Temperatures Affect Gray Cast Iron	Oct. 1	103
Loss, Shows Average	July 15	73
Losses		
Calculates Foundry	Sept. 1	117
Gives Percentage Gray Iron Foundry	May 15	72
Of Material in the Cupola	Oct. 15	66
Where Using Permanent Molds, Gives	Jan. 1	104
Louden Machinery Co., Introduces Motor Driven Trolley	Aug. 1	121
Low Shrinkage Alloy, Gives Analysis of	Nov. 15	62
Low Shrink Alloys, Gives Analysis For	July 1	108
Lubricator Forces Grease to Equipment Parts	Oct. 1	120

M

Machine Base, Molds	Sept. 15	70
Machined Surfaces Should Be Cast in Drag	Dec. 1	72
Machinery Castings According to Analysis, Classifies	Jan. 1	108
Machinery Castings in a New Foundry, Makes Textile	Jan. 1	88
Machines		
Describes Permanent Mold	March 1	104
Explains Use of Core	July 1	109
For Making Gaggers, Describes	April 1	131
Machining Does Not Impair Strength of Malleable Iron Castings	Oct. 15	81
Machining Operations on Permanent Molds, Few	Jan. 1	104
Mackintosh-Hemphill Co., Moves Offices	Jan. 1	103
MacPherran Awarded Whiting Medal by A. F. A., R. S.	Dec. 15	77
Madison-Kipp Corp. Designs New Grinder for Metal Patterns	March 15	117
Magnesium Alloy for Airplane Castings, Use	March 15	101
Magnesium to Alloys Lowers the Specific Weight, Addition of	Nov. 15	67
Magnetic Mfg. Co., Introduces New Type Magnetic Separator	Oct. 1	119
Magnetic Separator Is Portable, New	July 1	124
Magnetic Separator Has High Intensity	Oct. 1	119
Magnifying Glass Shows Defects	Oct. 1	97
Makes Plaster of Paris Core Dryer	April 15	94
Makes Textile Machinery Castings in a New Foundry	Jan. 1	88
Malleable		
Air Furnace, Explains Method of Adding Ferroalloys	Aug. 1	100
Annealing Furnaces From the Top, Heat	Jan. 15	88
Cast Iron, Describes Methods of Producing	Feb. 15	92
Casting, Shrink Bob Is in Cope in	Dec. 15	65
Castings, Aims at Perfection in	Dec. 1	66
Castings, Explains Warping of	April 15	91
Castings, Gives Data on Packing Material for	April 1	129
Castings, Gives Metal Mixture for	May 15	73
Castings, Explains Gating of	Sept. 1	119
Castings Is Shown, Production of	April 1	139
Castings, Low Manganese May Cause Shrinkage in	May 1	202
Castings, Makes Matchplates For	June 1	157
Castings Show Cracks, Hard	March 15	100
Foundry Makes Wagon Skeins	May 1	214
Fracture Is Unusual	July 1	107
Furnace, Builds Small	June 15	63
Gives Charges for Cupola	March 1	125
Iron Bath, Reactions Described When Mill Scale Is Added to	Nov. 15	61
Iron, Carbon Changes Form in Annealing of	Jan. 1	110
Iron Castings Depend on Feeding Methods, Sound	Oct. 1	76
Iron, Explains Annealing of	Feb. 1	117
Iron Castings, Machining Does Not Impair Strength of	Oct. 15	81
Iron, Gives Practice for Making Cupola	Feb. 1	117
Iron, Sets Manganese Limit in	July 15	77
Iron Wing-Nuts Are Described, Cores for	Sept. 15	66
Iron Wing-Nuts, Describes Molding of	Nov. 1	108
Irons, Compares	July 15	85
Is Cast in Permanent Molds—Part I, Cupola	March 1	104
Is Cast in Permanent Molds—Part II, Cupola	March 15	109
Practice, Apply Continuous Process to	May 15	61
Problems, Investigate	June 1	135
Malleable Iron Research Institute Meets at Cleveland	Jan. 1	118
Malleable Iron Research Institute Moves Offices	Aug. 15	86
Mandatory Goggle Rule Protects Eyes of Workers	Oct. 1	112
Manganese		
And Silicon as Deoxidizers, Uses	Sept. 15	79
Bronze, Describes Effect of Lead on	March 15	113
Copper Used as Deoxidizer for Copper	March 1	126
Limit, Sets	July 15	77
May Be Used as Deoxidizer for Nonferrous Mixtures	Oct. 15	75
May Cause Shrinkage in Malleable Castings, Low	May 1	202
On Steel, Describes Effect of	Jan. 1	100
Steel, Heat Treatment Determines Properties of	Sept. 1	102
Manhole Grate, Explains Method of Molding	Jan. 1	109
Manifolds Are Designed for Small Users	Aug. 15	83
Manifolds, Explains Molding of Automobile	Nov. 1	80
Manipulation for X-raying of Castings, Describes	Feb. 15	76
Master Patterns, Describes Manufacture of	April 1	104
Matching the Cope and Drag, Explains Method of	April 15	80
Match Plate Construction Used in Malleable Fitting Shop, Describes	Dec. 1	66
Match Plates		
Describes Foundry Practice Used in Molding	April 1	104
For Malleable Castings, Makes	June 1	157
Gives Alloy for Manufacture of	June 15	64
Is Fine, Facing Sand For	Dec. 1	90
Shrink	Nov. 1	109
Surfaces Defective, Aluminum	Nov. 1	109
Material Handling Methods in Cleaning Room, Describes	April 15	64
Mathews Conveyor Co. Introduces Roller Conveyor	Dec. 1	106
Mayer Appointed Vice President of Foundry Equipment Co., Carl F.	Feb. 15	112
McCormick Co. Introduces Coil Chill, J. S.	March 15	117
McWane Cast Iron Pipe Co., Description of	Sept. 15	48
Mechanical		
Sand Mixers, Describes	Jan. 15	81
Tests Involves Many Difficulties—Part I, Correlation of	Oct. 15	62
Tests Involves Many Difficulties—Part II, Correlation of	Nov. 1	93
Mellon Institute of Industrial Research To Expand	July 1	97
Melting		
And Pouring Practice For Yellow Brass, Explains	Jan. 1	111
Borings, Explains Furnace Practice When	June 15	64
Borings, Gives Methods of	Oct. 1	92
Cast Iron Borings, Explains Method for	April 15	89
Causes Variations in Mechanical Properties	Oct. 15	62
Costs, Briquetting Borings Reduces Gray Iron	July 15	68
Data on Gasoline Stove Castings, Gives	Aug. 15	67
Features Course, Brass	June 1	137
Furnaces, Consider	June 1	139
Is Slow in Producing Ring Castings	July 1	108
May Be Cause	Dec. 1	90
Needed, Careful	Jan. 1	108
Of Malleable Cast Iron	Feb. 15	92
Pots, Gives Analysis of Aluminum	May 1	201
Practice For Aluminum Bronze Scrap, Outlines	Aug. 15	67
Practice for Aluminum, Discusses	Dec. 15	52
Practice for Bronze Bearing Metal, Explains	Sept. 1	120
Practice For Bronze Used in Bushings, Describes	Oct. 1	93
Practice for Cast Iron Melted in the Electric Furnace in Which Steel Is Used	April 15	89
Practice for Copper Alloy, Describes	July 1	108
Practice for Copper-Nickel-Alloy, Gives	March 1	126
Practice for Cupola Malleable, Describes	March 1	125
Practice For Match Plate Alloy, Explains	June 15	64
Practice for Pattern Alloys, Explains	July 1	108
Practice For Producing Aluminum Bronzes	June 1	158
Practice for Reverberatory Furnaces, Outlines	Sept. 15	59
Practice For Small Bronze Bushings	Feb. 15	93
Practice on Basic Open Hearth Furnaces, Describes	June 15	42
Practice on 62-inch Cupola, Gives	May 1	200
Practice, Outlines Electric Furnace	Feb. 15	107
Practice, Outlines Steel	May 1	202
Practice, Speaks on German	Jan. 15	100
Practice When Steel Is Used in Stoveplate Work, Outlines	April 1	129
Rate of Cupoln, Gives	Aug. 1	100
Melts Gray Iron for Stove Plate in the Electric Furnace	Aug. 1	88
Melts Steel in Electric Furnace	April 1	118
Memorial Commemorates Achievements of Westinghouse	Nov. 1	98
Men and Machines Must Fit the Needs of the Particular Shop	Oct. 15	83
Merchandising		
Is As Necessary As Research	Nov. 15	76
Methods, Discusses Brass Foundry	April 1	109
Steel Founders Discuss	March 15	108
Merge		
Kay Steel Wheel Co., and Kay-Brunner Steel Casting Co.	Feb. 1	132
Sivyer and Nugent Steel Foundries	March 1	141
Wheeling Mold & Foundry Co., Will Not	March 1	120
Merges With P. H. & F. M. Roots Co., Stacy Engineering Co.	Feb. 15	72
Metal		
Cannot Be Used in Foundries, Direct	April 1	127
Causes Blow Holes, Cold	Dec. 1	96
Causes Pitted Castings, Over-heated	Nov. 1	113
Contraction, Measures	Sept. 15	79
Inserts Should Be Cleaned and Coated	Oct. 15	80
Patterns Used to Produce Pipe	Nov. 15	42
Separation in Brass Castings, Gives Method for Elimination of	May 1	203
Used in Permanent Molds, Gives Analysis of	March 1	104
Metal Mixture		
For Acid Resisting Castings, Gives	Jan. 15	86
For Aluminum Match Plates, Gives	Nov. 1	109
For Annealing Trays, Gives	March 15	99
For Brass Fittings, Gives	Sept. 15	69
For Brass Gasoline Stove Castings, Gives	Aug. 15	67
For Brass Water Fronts, Gives	March 1	126
For Bronze Castings, Gives	April 1	130
For Bronze Gears, Gives	April 15	92
For Bronze Pump Castings, Gives	March 15	101
For Car Wheels, Gives	March 1	124
For Engine Bed Castings, Gives	Sept. 15	66
For Grate Bars, Gives	Aug. 1	99
For Ingot Molds, Gives	April 15	90
For Locomotive Boiler Plugs, Gives	March 15	101
For Low Shrinkage Alloy, Gives	Nov. 15	62
For Making German Silver Castings, Gives	Jan. 15	89
For Mine Car Wheels, Gives	March 15	98

	Month	Page
For Piston End Bushings, Gives	Sept. 1	120
For Piston Rings, Gives	Aug. 15	65
For Roll Castings, Gives	April 1	128
For Roll Casting, Gives	Oct. 1	112
For Soap Molds, Gives	Oct. 1	93
For Tire Molds, Gives	Oct. 1	92
For Valve Seats, Explains	Sept. 15	69
Used in Floor Plates For Coke Plant, Gives	Feb. 1	115
Metal Mixtures		
For Aluminum Bronzes, Gives	June 1	158
For Bearings, Gives	June 1	158
For Bells, Gives Various	July 15	78
For Brass Plumbing Castings	April 15	92
For Chilled Castings, Gives	Aug. 1	99
For High Test Gray Iron, Gives	Dec. 1	88
For Malleable Castings, Gives	May 15	73
For Pattern Alloys, Gives	July 1	108
For Permanent Molds, Gives	Aug. 15	64
For Plating Anodes	July 15	78
For Pressure Castings, Gives	Nov. 15	62
For Producing White Iron, Gives	March 15	98
For Semi-Steel Gear, Gives	Nov. 1	106
Metallurgical Advisory Board to the United States Bureau of Mines, Carnegie Institute of Technology to Meet	Oct. 1	117
Metallurgical Research Aids Industry	Aug. 15	73
Metallurgy, Study Gray Iron	June 1	130
Method		
For Adding Alloys To Steel, Gives	Feb. 1	100
For Chilling Sheave, Outlines Proper	Aug. 1	100
For Controlling Carbon in Cast Iron, Explains	Sept. 15	66
For Curing Cracking Tendency in Stoveplates, Outlines	Aug. 15	64
For Eliminating Shrinkage in Gray Iron Castings, Gives Several	April 1	128
For Heat Treating Cast Iron, Outlines Various	Aug. 15	78
For Melting Cast Iron Borings, Explains	April 15	89
For Producing Electric Furnace Steel, Compares	Feb. 1	100
For Reducing Cracking in Permanent Molds, Outlines	Aug. 15	66
For Remedying Defects in General Housework Castings, Explains	Aug. 1	99
For Remedying Segregation, Explains	Aug. 1	98
For Securing Solid Hard White Iron Ball	Aug. 15	66
Of Analysis Should Govern Core Oil Specifications, Uniform	Feb. 1	121
Of Blending Sands, Explains	Jan. 15	78
Of Eliminating Wrinkles in Gray Iron Casting, Explains	June 15	62
Of Gating, Discusses	March 15	93
Of Molding, Describes Various	March 1	135
Of Pouring Permanent Molds, Gives	March 15	109
Of Producing Malleable Cast Iron, Describes	Feb. 15	92
Used at Lenoir Car Works, Lenoir City, Tenn., Describes	Jan. 1	104
Michigan City Core Sand Corp., Incorporated	March 15	97
Micrograph		
Of Cast Irons, Gives	March 1	107
Showing High Phosphorus Iron	Nov. 1	86
Shows Graphite-Ferrite Formation Surrounded by Pearlite	June 1	152
Micrographs		
Of Alloy Steel, Shows	Jan. 15	71
Of Cast Iron Made With Large Amounts of Steel	Jan. 1	112
Of Fine Mesh Sand	Aug. 15	52
Of Sand Grains With Various Percentages of Bond, Shows	April 15	74
Of Sand With Various Percentages of Bond, Shows	May 15	56
Showing Various Cast Iron Structures	Oct. 15	62
Miller Converted into Die Sinking Machine	Nov. 15	80
Milwaukee Electric Crane & Hoist Corp. Places New Electric Hoist on the Market	June 1	180
Milwaukee Foundry Equipment Co., Offers New Type Molding Machine	Aug. 1	121
Mine Car Wheel, Describes Gating of	Feb. 15	92
Mines Car Wheels, Gives Metal Mixture for	March 15	98
Mixers		
Describes Many Types of Sand	Feb. 1	105
Describes Mechanical Sand	June 15	81
Describes Sand	Feb. 15	97
Mixes Iron for Pistons	June 15	63
Mixing Sands, Gives Various Methods of	Jan. 1	94
Mixture		
Causes Dirt, Sand	June 1	155
For Acid Resisting Castings, Gives Metal	Jan. 15	86
For Aluminum Bronze, Gives Metal	June 1	158
For Aluminum Matchplates, Gives Metal	Nov. 1	109
For Annealing Trays, Gives Metal	March 15	99
For Bearings, Gives Metal	June 1	158
For Brass Fittings, Gives	Sept. 15	69
For Brass Gasoline Stove Castings, Gives Metal	Aug. 15	67
For Brass Water Fronts, Gives Metal	March 1	126
For Brass Plumbing Castings, Gives Metal	April 15	92
For Bronze Castings, Gives Metal	April 1	130
For Bronze Gears	April 15	92
For Bronze Pump Castings, Gives Metal	March 15	101
For Car Wheels, Gives Metal	March 1	124
For Copper Lead Alloys, Gives	Jan. 1	111
For Daubing Material, Gives	Feb. 1	117
For Engine Bed Castings, Gives Metal	Sept. 15	66
For Grate Bars, Gives Metal	Aug. 1	99
For High Pressure Bronze Castings	Jan. 1	111
For Ingot Molds, Gives Metal	April 15	90
For Locomotive Boiler Plugs, Gives Metal	March 15	101
For Low Shrinkage Alloy	Nov. 15	62
For Machine Made Cores, Sand	Jan. 15	89
For Making German Silver Castings, Gives Metal	Jan. 15	89
For Making Waterfront Cores, Sand	Feb. 1	116
For Malleable Castings, Gives Metal	May 15	73
For Mine Car Wheels, Gives Metal	March 15	98
For Pattern Alloy, Gives Metal	July 1	108
For Piston End Bushings, Gives Metal	Sept. 1	120
For Piston Rings, Gives Metal	Aug. 15	65
For Roll Castings, Gives Metal	April 1	128
For Small Brass Castings, Sand	Jan. 15	89
For Soap Molds, Gives Metal	Oct. 1	93
For Tire Molds, Gives Metal	Oct. 1	92
For Valve Seats, Gives Metal	Sept. 15	69
For Yellow Brass Castings, Gives	Jan. 1	111
Gives Grate Bar	Aug. 15	64
Is All Steel	Dec. 1	88
Used for Making Matchplates, Litharge	June 1	157
Used in Manufacture of Floor Plates for Coke Plant, Gives Metal	Feb. 1	115
Mixtures		
Aluminum Castings Require Proper Sand	Dec. 15	52
Composition of Molding Sand	Feb. 15	97
For Aluminum Alloys, Gives	Feb. 15	93
For Chilled Castings, Gives Metal	Aug. 1	99
For High Test Gray Iron, Gives	Dec. 1	88
For Jacket Cores for Gasoline Engines, Gives Core	March 15	99
For Metal Patterns	July 15	73
For Oil Sand Cores, Gives	April 1	127
For Permanent Molds, Gives Metal	Aug. 15	64
For Plating Anodes, Gives Metal	July 15	78
For Pressure Castings, Gives	Nov. 15	62
For Producing White Iron, Gives Metal	March 15	98
For Semi-Steel Gear, Gives Metal	Nov. 1	106
For Steel Castings, Core	July 1	113
For Stove Grates, Gives	March 15	98
Gives Comparative Data on Sand	April 15	74
Gives Data on Sand	May 15	56
Gives Sand	May 15	70
Gives Steel Foundry Sand	Feb. 15	92
Gives Steel Molding Sand	June 15	42
Gives Various Sand	Dec. 1	80
Of Gases and Liquids, Controls	Aug. 15	85
Reduces Costs by Controlling Oil Sand	April 1	125
Used in Pipe Foundries, Sand	July 1	98
Vary, Core	Sept. 1	117
With Same Bond Content, Cost of Sand	June 15	56
Modern Foundry Flourishes in the Orient	March 15	91
Modern Pouring Device Co. Introduces Machine to Handle 1000-Pound Ladles	April 15	102
Moisture		
Determining Apparatus, Shows Details of Electrical	May 15	56
Effect on Compressive Strength of Cores Made With Various Core Binders	Dec. 15	52
In Steel Sand Mixture Is High	Aug. 1	92
Molasses Water Is Used	Sept. 15	65
Mold		
Before Pouring, Described Preparation of the	March 15	109
Causes Defective Yoke Castings	Sept. 1	119
Causes Dross, Dirty	June 15	61
Clamps, Describes Various Types of	May 15	65
Details Cylinder Head	Sept. 15	78
Iron Backs Out of	Dec. 15	63
Life Increased	Dec. 15	64
Long Beds Warp in the	Feb. 1	126
With Molasses Water, Spray	Feb. 15	90
Molding		
A Smokestack—I, Bill Tells of	July 15	79
A Smokestack—II, Bill Tells of	Aug. 1	114
A Smokestack—III, Bill Tells of	Aug. 15	75
A Smokestack—IV, Bill Tells of	Sept. 1	121
Bill Gets a Hot Tip on Keel	May 15	82
Cast Iron Pipe With Universal Joints, Explain	Nov. 15	42
Comments on Jobbing	April 15	86
Costs, Reduces	July 15	85
Data for Chilled Rolls	Sept. 15	65
Difficulties From Poor Pattern Equipment Increase Costs of Castings	Aug. 15	56
Gives Variations in Methods of	July 15	82
In Loam, Describes	Feb. 15	97
Machine, Dust Proof Construction Features	Aug. 1	120
Machine Has Large Capacity	June 15	82
Machine Has Wide Range	June 1	178
Machine, One Valve Operates	July 15	88
Machine Operations Are Controlled Centrally	Sept. 1	127
Machine, Studies Squeezer	Sept. 15	79
Manhole Grate, Explains Method of	Jan. 1	109
Method Eliminates Metal Separation in Brass Castings	May 1	203
Method for Circular Plate, Gives	March 15	99
Method, Lamp Post Design Determines	Dec. 1	82
Method to Eliminate Draws in Castings, Describes	April 1	144
Methods for Aluminum Pattern Plates, Explains	Nov. 1	109
Methods Used in American Art Bronze Foundry, Chicago, Describes	Feb. 1	112
Of Aluminum Sphere, Describes	Feb. 1	103
Of Aluminum Vacuum Pan, Explains	May 15	60
Of Copper Castings, Describes	Feb. 15	93
Of Clutch Casting, Describes	March 1	125
Of Cylinder Blocks, Describes	March 1	115
Of Floor Plates for Coke Plant, Describes	Feb. 1	115
Of Hydrant Foot Castings, Explains	Jan. 15	87
Of Individual Piston Rings, Describes	Jan. 15	64
Of Malleable Iron Castings, Describes	Oct. 1	76
Of Round Plate, Describes	Feb. 15	91
Of Planer Bed, Describes	Feb. 1	126
Of Textile Castings, Describes	Jan. 1	88
Possibilities for Wing-Nuts, Outlines	Sept. 15	66
Practice for Bronze Pump Bodies, Describes	March 15	88
Practice for Ornamental Aluminum Castings, Describes	Sept. 1	90
Practice for Waterwheel, Describes	Feb. 1	116
Pulleys, Describes Method for	June 15	50
Pulleys, Explains Various Methods for	Aug. 1	90

	Month	Page
Sand Causes Pinholes In Annealed Castings	Feb. 1	117
Sand, Gives Essential Information on a	May 15	56
Sand, Examines	July 15	85
Sand, No Specifications Known For Steel	Feb. 1	117
Sand Requires a Proper Base, Synthetic	Dec. 1	80
Sands, Gives Chemical Analysis of	Jan. 1	94
Tools, Explains Use of	March 15	93
Molds		
A Bedplate	Sept. 1	112
Abrasive Material on Castings	Dec. 1	89
Alloy Steel Castings	Sept. 15	61
Alloy Steel Chains	June 1	159
Bill Offers Advice on Permanent	Jan. 1	114
Bracket With Arms	June 1	163
Brass Castings	July 15	48
Brass Tablets	Sept. 15	69
Bronze Gear Blanks Poured in Spinning Steel	Sept. 15	59
Bronze Liners	April 1	130
Calculates Weights for	June 15	79
Cast Iron Pipe Horizontally	Sept. 15	48
Cast Iron Pipe in Dry Sand Mold	Sept. 1	104
Centrifugal Pump Housing	Sept. 15	70
Core Iron	July 15	82
Crack, Permanent	Aug. 15	66
Curved, Flanged, Pipe	Sept. 1	112
Explains Operations of Centrifugal Pipe	May 15	75
Flat Bed	Sept. 15	70
Flywheel	Sept. 1	112
Flywheel Castings	July 15	82
Large Pipe	Oct. 15	54
Lathe Bed	Sept. 15	70
Not Poured Direct	April 1	127
Pipe Fittings	Sept. 1	104
Piston Rings	Aug. 15	65
Pump Liners	Sept. 1	120
Railroad Bronzes Are Cast in Permanent	Jan. 1	104
Roll Casting	June 1	156
Sash Weights	Nov. 1	107
Sheave Wheels	Nov. 15	60
Stick to Cores	Feb. 15	90
Straight Pipe	Sept. 1	112
Surface Plate	Sept. 15	84
Wagon Skein Castings	May 1	214
Molten Brass Causes Porosity, Heavy Glass Slag on	Dec. 1	90
Molybdenum Improves Gray Iron	June 15	54
Monocast Centrifugal Process, Describes	July 1	98
Morgan Appointed by Yale & Towne Mfg. Co., James C.	Feb. 15	112
Motor		
Cleans Air For	Sept. 15	82
Cooled by External Fan, Enclosed	Dec. 1	105
Frames, Describes Molding of Synchronous	Oct. 1	76
Frequent Reversal a Feature of	Dec. 15	81
Heads Are Hard, Small	March 1	123
Motor Patterns Co., Describes	April 1	104
Mottled Cast Iron Resists Heat	Sept. 15	65
Mottled Fracture Best for Grate Bars	Aug. 1	99
Mounts Patterns for Brass Castings	April 15	69
Mower Castings, Improves Toughness in Lawn	Aug. 15	65
Museum Shows Steps in Foundry Practice, Newark	July 15	63

N

Nails in Molds, Explains Use of	April 15	80
Nails in Mold, Gives Use of	April 1	131
Nameplates, Gives Alloys for Tablets and	Aug. 1	103
Nash Motors Co., Description of Core Room of	July 1	88
National Association of Cost Accountants Discusses Budget Control	Nov. 1	115
National Association of Foremen to Meet at Toledo	April 1	133
National Association Foremen to Meet at Toledo	May 15	89
National Cast Iron Pipe Co., Describes Centrifugal Casting Shop of	Aug. 1	104
National Cast Iron Pipe Co., Describes Plant of	Sept. 1	104
National Engineering Co., Acquires Standard Sand & Machine Co.	Oct. 15	61
National Founders' Association Meets in New York	Dec. 15	69
National Metal Congress to be Held in Chicago	May 15	68
National Metal Trades Association Meets	May 15	88
National Safety Council		
Appoints Committee on Foundry Safety	March 1	130
Meets at Pittsburgh	Nov. 1	105
Outlines Program for Pittsburgh Meeting	Sept. 15	58
Publishes Safety Folders	April 1	119
To Hold 1930 Meeting at Pittsburgh	Feb. 15	88
Newark Foundrymen's Association		
And American Society of Mechanical Engineers Hold Joint Meeting	Nov. 15	77
Elects Officers and Directors	June 15	59
Officers Hold Meeting	July 15	63
Newark		
Castings Exhibit Is Interesting	Oct. 1	102
Museum Shows Steps in Foundry Practice	July 15	63
Public Library Publishes Booklist	May 15	87
Newaygo Engineering Corp., Introduces Crusher to Reclaim Core Sand	Aug. 15	84
New Departure Mfg. Co., Introduces Self Lubricating Ball Bearing	Jan. 15	106
New England Foundrymen's Association		
Discuss Costs	Nov. 1	112
Elects Officers	Jan. 15	101
Hears Gray Iron Institute Manager	Dec. 1	86
Holds Annual Outing	Aug. 1	119
Holds July Outing	July 15	87
Holds Meeting	June 15	84
Meets	Oct. 1	115
New England Ready, Final Volume of Survey on	June 1	154
New Foundry Cast Alloy Steel	Sept. 15	61
New York Water Tunnel, Receives Contract for Castings for Aug	15	86
New York Water Tunnel, Many Castings Used in	Aug. 1	89
Wm. H. Nicholls Co. Inc.		
Announces New Molding Machine	June 1	178
Introduces New Jolt, Power Squeeze, Pattern Draw Molding Machine	June 15	82
Introduces New Molding Machine	July 15	88
Nickel		
Alloys, Discusses	April 15	86
And Chromium on Rusting Properties of Cast Iron, Describes Effect of	Oct. 1	92
Improves Properties of Bronze	Oct. 15	75
Influences Brinell Hardness	Nov. 1	86
Is Told in Broadcast, Importance of	June 1	181
Is Used in Castings to Withstand Steam Pressure	Aug. 1	103
Loss Is High	May 15	70
Lowers Specific Weights, Addition of	Nov. 15	67
On Cast Iron, Explains Effect of	March 15	113
On Steel, Describes Effect of	Jan. 1	100
Silver, Gives Specifications for	Jan. 15	90
To Alloy for Plumbing Fixtures, Adds	April 15	69
Nonferrous		
Alloys, Describes Effect of Nickel on	April 15	69
Sessions Further the Art	June 1	134
Castings Used in Aeronautical Industry	Nov. 15	75
Committees Report	July 15	67
Foundries Should Have Standard Cost Systems	April 1	146
Foundry, Describes Cost System Used in	Oct. 15	59
Production, Layout Aids	July 15	48
Ingot Metal Institute Attends Trade Practice Conference	March 15	115
Non-magnetic Iron, Gives Properties of	Jan. 15	90
North American Iron Works, Awarded Post Contracts	Sept. 15	63
North American Refractories Co., Acquires Two New Companies	July 15	91
Northern Engineering Works, Makes All Alluminum Crane	Oct. 15	94
Nugent and Sivyer Steel Foundries Merge	March 1	141
Numerous Patterns Are Required For Pump Castings	Jan. 1	117
Nuts and Bolts, Castings Aid in Manufacture of	June 1	125

O

Observe Seventy-fifth Anniversary	Aug. 15	55
Officers		
A. I. M. E. Elects	March 15	79
Of Chicago Foundrymen's Association, Gives	Dec. 15	82
Of Institute of British Foundrymen, Gives	July 15	71
Of National Founders' Association, Elect	Dec. 15	69
Ohio Foundries Association		
Holds Meeting Near Canton	July 1	112
Compares Foundry Trade Customs	Jan. 15	107
Meets at Dayton	Feb. 15	106
Postpones April Meeting	April 1	149
To Meet at Canton	June 15	84
To Stress Safety	Dec. 1	71
Will Meet	Feb. 1	114
Meets at Cincinnati	Sept. 1	103
Will Meet In Cincinnati	Aug. 1	119
Ohio Steel Foundry Co., Buys Foundry of Brown-Hoist Co.	June 1	154
Ohio Steel Foundry Co., Description of Alloy Steel Foundry of	Sept. 15	61
Oil		
Burners, Brass Melting Furnaces Are Fired With Two	Nov. 1	92
Engine Cylinder Block, Gives Analysis for	Sept. 15	66
Sand Cores, Gives Mixtures for	April 1	127
Sand Cores Used in Casting Alloy Steel Chains	June 1	159
Sand Mixtures, Reduces Costs by Controlling	April 1	125
Old Casting Uses Should be Studied to Develop New Requirements	Oct. 15	90
One Valve Operates Molding Machine	July 15	88
Open Hearth Furnaces, Explains Melting Practice Used on	July 15	42
Operating and Sales Efforts, A Foundry Budget Directs	Nov. 15	53
Operation of 32-inch Cupola, Explains	Nov. 15	57
Ore Additions, Expresses Opinion on	Feb. 15	103
Ore Handling Equipment, Castings Are Used in Construction of	Nov. 15	41
Orient, Modern Foundry Flourishes in the	March 15	91
Ornamental Aluminum Castings, Aluminum-Silicon Alloy Used for	Sept. 1	90
Osborn Mfg. Co. Introduces New Type Vibrators	Sept. 1	128
Otis Steel Co. Casts Large Anvil Block	Nov. 15	73
Output of Various Type Foundries in Czechoslovakia	Sept. 1	98
Oven Bakes Cores Rapidly, Gas-fired Horizontal	Feb. 15	68
Ovens, Bake Cylinder Block Cores in Continuous	Dec. 15	56
Over Annealed Steel Is Recognized Through X-Ray Spectrometry	May 1	197
Over-Chilling, Shows Effect of	Dec. 15	52
Overcome Alloy Ingot Trouble	Aug. 15	60
Over-heated Metal Causes Pitted Castings	Nov. 1	113
Over-poled Condition in Copper, Explains	Sept. 1	108
Over-poled Copper, Describes Trouble With	April 1	143
Oxidation, Excess Air Causes	April 1	116
Oxidized Metal Rises in Mold	Dec. 15	63
Oxweld-Acetylene Co.		
Designs Manifolds for Small Users	Aug. 15	83
Introduces Constant Flow Regulator	Dec. 1	106
Introduces New Type Welding Rod	Oct. 1	120
Introduces Welding Blowpipe	April 15	102

P

	Month	Page
Pacific Coast Founders Elect Officers	Nov. 15	58
Pacific Foundries Adopt Standards	June 1	173
Packing Material Data, Gives	April 1	129
Paint, Wants Waterproof	July 1	105
Palmer-Bee Co. Publishes Book on Conveyors	July 1	123
Pan Needs Many Runners, Aluminum	May 15	60
Pangborn Corp. Makes New Sandblast Helmet	Dec. 1	105
Paper Used in Pipe Cores, Corrugated	Jan. 15	87
Papers to Be Presented At Cleveland Convention, Lists	Jan. 1	98
Parsons Engineering Corp. Changes Name	July 1	97
Parsons Engineering Corp. Designs Machine for Cleaning Radiator Castings	Nov. 15	79
Partings, Discusses Mold	March 15	93
Partition for Protection Against Zinc Fumes, Describes	July 15	50
Patch Is President Elect, N. K. B.	June 1	126
Pattern		
Alloy, Gives Metal	April 1	104
Alloys, Gives Metal Mixtures for	July 1	108
Arrangement For Brass Castings, Gives	Feb. 15	73
Costs, Steel Foundrymen Should Study	Aug. 15	56
Designations Adopted by Industry	April 1	115
Equipment, Co-operation Brings Better	Jan. 15	75
Equipment for Small Steel Castings Should Be Standardized..	Aug. 15	56
Halves Alike	Nov. 15	59
Plates Are Used	Dec. 1	87
Plates, Explains Method of Molding Aluminum	Nov. 1	109
Plates for Malleable Iron Wing Nuts, Describes Making of	Nov. 1	108
Practice, Explains	July 1	113
Sand Sticks to	July 1	106
Shops Should Be Operated As Separate Business	Aug. 15	56
Patternmaking Requires Skilled Craftsmen	April 1	104
Patterns		
Are Required For Pump Castings, Numerous	Jan. 1	117
Are Finished	July 15	73
Used to Produce Cast Iron Pipe, Metal	Nov. 15	42
Pearce Addresses Foundry Groups, J. G.,	May 15	80
Pearce Expresses Appreciation, J. G.	Aug. 15	86
Pearlite Offers Resistance to Indentation in Brinell Hardness	Nov. 1	86
Pearlitic Cast Irons, Discusses	May 15	85
Peck, Stow & Wilcox Co. Elects Officers	Aug. 15	81
Penetration of Steel Cast Against Sand, Shows	Aug. 1	93
Penton Gold Metal Awarded to H. A. Schwartz, John A.	Jan. 1	127
Percentage of Steel Used in Stoveplate Work, Gives	April 1	129
Permanent Mold Data, Gives	June 1	157
Permanent Molds		
Alloys Used in	Aug. 15	64
Aluminum Kitchenware Is Cast in	Oct. 1	86
Are Used to Cast Iron Balls	Oct. 15	79
Bill Offers Advice On	Jan. 1	114
Crack	Aug. 15	66
Part I, Cupola Malleable Is Cast in	March 1	104
Part II, Cupola Malleable Is Cast in	March 15	109
Gives Properties of	March 15	113
Light Alloy Pistons Are Cast In	Nov. 15	67
Railroad Bronzes Are Cast in	Jan. 1	104
Permeability		
By Bond and Subpan Material, Reduction in Average	May 15	56
Curves Showing the Relationship Between the Percentage of Bond, Grain Size and	March 15	84
Many Factors Influence	Jan. 15	100
Personnel Changes Locations in Foundry Industry	Nov. 15	76
Personnel, Defines	June 1	138
Petroleum Coke Has High Carbon Content	Nov. 15	60
Petroleum Coke to Increase Carbon Content, Uses	Nov. 15	51
Philadelphia For 1932, A.F.A. Selects	Nov. 1	85
Philadelphia Foundrymen's Association Elects Officers	July 15	89
Philadelphia Foundrymen's Association Holds Annual Outing	July 1	122
Phosphor Bronze by Pouring Too Hot, Trouble is Caused in	Oct. 15	92
Phosphor Bronze Castings, Outlines Method for Elimination of Gas Pockets in	May 1	203
Phosphorus		
Affects Gun-Metal	Oct. 15	84
Gray Irons, Explains Physical Properties of High	June 1	152
In Nonferrous Alloys, Gives Action of	April 15	69
Is High in Bearings	June 1	158
Photograph of First American Foundrymen's Convention	May 1	207
Physical Properties		
Explains Variations in	July 1	94
Of Alloy Steel Castings, Gives	Jan. 15	71
Of Aluminum Alloys Used in Permanent Molds	Oct. 1	86
Of Cast Iron, Gives	March 1	107
Of Chrome Steel	Jan. 15	71
Of Cupola Malleable Iron, Gives	Feb. 1	117
Of Gray Iron, Gives Some	Feb. 1	94
Of Heat Treated Chrome Nickel Steel	Jan. 15	71
Of High Grade Cast Iron	Jan. 1	112
Of High Phosphorus Gray Irons, Explains	June 1	152
Of High Silicon Light Alloys	Jan. 1	121
Of Manganese, Chrome, Nickel, Molybdenum Steel	Jan. 15	71
Of Metal for Gears	March 1	123
Of Molybdenized Iron	June 15	54
Of Nickel Alloys, Lists	Jan. 15	90
Of Some Alloys, Gives	Nov. 15	69
Of Vanadium Steel, Gives	Jan. 1	100
Of Various Structured Gray Irons	Oct. 15	62
Of 1.20 to 1.60 Manganese Steel, Gives	Jan. 1	100
Physical Tests on End Plate, Results of	Dec. 1	72
Piano Pedal Castings, Iron Causes Specks In	April 15	92
Pickle Cleans Castings	Nov. 15	60
Pickling Solution for Gray Iron Castings, Gives Ingredients of	Nov. 15	60
Piece Rather Than Pound Rate Should Prevail in Steel Castings Industry	July 15	86
Piedboeuf's Diagram Showing Positions of Cast Irons Produced by Various Continental Processes Superimposed on Maurer's Diagram	Aug. 1	110
Pig Iron		
And Scrap, Explains Classification of	Oct. 15	66
Cannot Be Made From Scrap in the Cupola	Aug. 15	66
Molds, Gives Analysis for	Dec. 15	64
With High Titanium Oxide Eliminated Hard Spots	April 1	143
Pillow Block, Designs	Aug. 1	122
Pinholes In Gland Castings, Sand Causes	Feb. 1	117
Pinholes Interfere With Enameling Process	July 15	77
Pins on Pattern Plates, Locates	Dec. 1	87
Pioneers of Foundry Industry Were Brave	Dec. 1	100
Pipe		
Alabama Makes 65 Per Cent of Nation's Cast Iron	March 1	98
Centrifugally in Sand Molds, Casts	July 1	98
Cores, Corrugated Paper Used in	Jan. 15	87
Daily, Machines Cast 10 Miles of Cast	May 15	75
Fittings, American Standards Association Develops New Standard For	Feb. 15	72
Fittings, Explains Defects in	Dec. 1	66
Fittings, Gives Data on	Feb. 1	117
Industry, Describes Facilities of Cast Iron	April 1	120
Is Cast Horizontally—I, Pressure	Sept. 15	48
Is Cast Horizontally—II, Pressure	Oct. 1	99
Is Held to Close Limits	April 1	120
Lines, Castings Are Used on Long Natural Gas	Aug. 15	43
Molds Straight	Sept. 1	112
Requires Rigid Inspection	Aug. 15	72
Shapes, Southern Foundry Concentrates on Special	Oct. 15	54
Vertically in Sand, Casts	Sept. 1	104
With Universal Joints, Cast	Nov. 15	42
Pipes		
Are Too Thin	Dec. 1	88
Sand Sticks to Bells on Water	Aug. 15	65
Piping, Explains Effect of Elements on Shrinkage and	Dec. 1	76
Piston		
Alloy, Aluminum Co. of America Develops	Sept. 1	123
Cores, Correct Defect in	May 1	201
End Bushings, Gives Metal Mixture For	Sept. 1	120
Ring Castings Are Molded in Green Sand	Nov. 1	108
Rings, Explains Causes of Defects in	April 15	90
Rings, Explains Method of Casting	July 15	73
Rings Individually, Cast	Jan. 15	64
Rings, Molds	Aug. 15	65
Piston Ring Co., Muskegon, Mich., Describes Foundry of	Jan. 15	64
Pistons		
Are Cast In Permanent Molds, Light Alloy	Nov. 15	67
Are Spongy	Jan. 1	109
Mixes Iron For	June 15	63
Pit, Break Scrap For Foundry in a Special	Nov. 15	69
Pitted Castings, Over-heated Metal Causes	Nov. 1	113
Pittsburgh Foundrymen Hear Walton	April 1	149
Pittsburgh Foundrymen's Association Elects New Officers	June 1	179
Pittsburgh Foundrymen's Association Holds Meeting	Nov. 15	78
Plainville Castings Co., Description of	Oct. 15	71
Planer Bed, Molding Methods Used On	Feb. 1	126
Plant Visitation Schedule for A.F.A. Convention, Announces	May 1	213
Plaster of Paris		
As a Flux for Red Brass, Uses	July 15	78
Core Dryer, Makes	April 15	94
Molds, Explains Use of	June 15	64
Plate		
Castings, Has Difficulty With	Dec. 1	87
Describes Molding of Round	Feb. 15	91
Gives Molding Method for Circular	March 15	95
Is Spongy on Ribs	Sept. 15	65
Molds Curved	June 15	50
Warps in Center	June 15	61
Plating Anodes, Makes	July 15	78
Plow Shares, Explains Method for Hardening	June 1	156
Plumbing Castings, Gives Metal Mixtures For Brass	April 15	92
Points Out Society's Value	April 15	79
Porosity, Discusses	Feb. 15	104
Porosity in Nonferrous Metals, Studies	Dec. 15	48
Porter-Cable Machine Co. Redesigns Bench Sander	Sept. 1	127
Porter Is Re-elected Chairman of Engineering Foundation, H. H.	April 1	119
Post Castings Must Cool Uniformly, Lamp	Aug. 15	68
Post Design Determines Molding Method, Lamp	Dec. 1	82
Posts, Core Shifts Bend	June 1	155
Pot Resists Acid, Iron	Jan. 15	86
Pots, Gives Analysis of Aluminum Melting	May 1	201
Pour Castings Rapidly	Dec. 15	64
Pouring		
Basins, Describes	Dec. 1	96
Device Handles 1000-Pound Ladles	April 15	102
Explains Advantages of Continuous	April 15	90
Practice for Aluminum, Discusses	Dec. 15	54
Practice for Centrifugally Cast Gear Blanks, Outlines	Sept. 15	59
Practice for Large Pump Liners	Sept. 1	120
Practice For Locomotive Driving Brasses, Discusses	Feb. 1	118
Practice for Ornamental Aluminum Castings, Describes	Sept. 1	90
Practice For Permanent Molds, Explains	Jan. 1	104
Practice For Yellow Brass, Explains	Jan. 1	111
Methods, Discusses	March 15	93
Speed May Be Adjusted with Precision	March 1	129
Temperature for Bronze Bushings	Feb. 15	93
Temperature of Cast Iron, Gives	Feb. 1	117
Temperature for Malleable Iron Cast in Permanent Molds	March 15	109
Temperature on Casting Soundness, Effect of	Nov. 15	47
Temperature on Specific Gravity, Shows Effect of	Nov. 1	86
Temperature, Shows Effect of	Dec. 15	45
Temperatures on Tensile Strength of Aluminum Castings, Chart Showing Effect of	Dec. 15	52
Pours Iron Too Cold	April 1	128
Power Consumption on Electric Furnace, Gives	May 15	61

	Month	Page
Power Required to Run Induction Furnace	April 1	118
Predestination Made Him a Foundryman	Aug. 15	79
Prepares Facing Sand for Bronze Tablets	March 15	118
Pressed Steel Horses Are Easily Erected	July 15	88
Pressure		
Castings, Gives Core Mixture For Use In	June 15	64
Gives Bronze Mixture to Withstand Superheated Steam and High	Aug. 1	103
Pipe Is Cast Horizontally—I	Sept. 15	48
Pipe Is Cast Horizontally—II	Oct. 1	99
Preventing Unsoundness in Bronzes and Red Brass		
Part I	Aug. 1	84
Part II	Sept. 1	108
Part III	Oct. 15	75
Part IV	Nov. 15	47
Part V	Dec. 15	48
Price Cutting		
Comments on	Feb. 1	130
Comments on	Sept. 1	124
Decries	Feb. 15	108
Is Great Evil	Sept. 15	80
Price Determined by Foundry Costs, Casting Sale	Oct. 15	59
Prize Winners of Apprentice Contests Sponsored by A.F.A.	Aug. 1	113
Probabilities in the Foundry, Explains Use of	Aug. 15	44
Problems Confronting Steel Foundry Industry	July 15	52
Producer Should Study Customer's Requirements	April 15	98
Produces Cores With Speed and Accuracy	July 1	88
Production		
Costs With a New Steel Foundry, Reduces	Dec. 15	44
Of Electric Steel for Casting, Comments on	Feb. 15	103
Of Malleable Is Shown	April 1	139
Record System for Foundries, Outlines	Aug. 15	71
Sand Loss and Facing Needs in a Foundry	June 15	56
Shows How Borings Influence	July 15	68
Program For Cleveland Convention, Tentative	Jan. 1	98
Propellers, Gives Alloys for Ship	June 15	79
Properties		
Of a New Alloy, Gives	Dec. 15	60
Of Corrosion Resistant Alloys	Jan. 15	90
Of Good Core, Outlines	Sept. 15	64
Of High Chromium Irons, Gives	May 1	200
Of Light Alloys, Explains	Jan. 1	121
Of Non-Magnetic Iron	Jan. 15	90
Of Permanent Mold Castings, Compares	Jan. 1	104
Of Vanadium, Explain	Dec. 15	64
Of Various Alloy Steel Castings—Part I, Compares	Jan. 1	100
Of Various Alloy Steel Castings—Part II, Compares	Jan. 15	71
Provide Employment For As Many As Possible	Aug. 1	118
Publication Describes Indiana Sands	May 15	87
Pulley Casting Is Not Gated Properly	Dec. 15	65
Pulleys, Describes Method for Molding	June 15	50
Pulverizer Fuel Equipment Co. Puts New Pulverizer on The Market	June 1	178
Pump		
Bodies, Describes Molding Practice for Bronze	March 15	88
Castings, Gives Metal Mixture for Bronze	March 15	101
Castings, Numerous Patterns Are Required for	Jan. 1	117
Housing, Molds Centrifugal	Sept. 15	70
Liners, Explains Molding of	Sept. 1	120
Purchasing Agents Association of New York Meets	Dec. 15	82
Pyrometer Designed for Brass Foundries	Oct. 1	119

Q

	Month	Page
Quad City Foundrymen's Association		
And A.F.A. Plan Joint Meeting	Feb. 15	89
And American Foundrymen's association Plan Joint Convention at Moline	April 15	72
And American Foundrymen's Association Hold Joint Meeting	March 1	114
Elects Officers	May 15	90
Hears Arnold Lenz	Dec. 1	105
Meets	Oct. 1	115
Meets	Nov. 1	84
Quad-City Group And A.F.A. Plan Joint Meeting	Feb. 15	89
Quantitative Measuring of Silicon in Cast Iron, Report on	June 15	79

R

	Month	Page
Radiator		
Are Defective	July 15	77
Castings Are Cleaned by Machine	Nov. 15	79
Castings, Sand Causes Leaks in	March 15	100
Contain Holes	Sept. 1	118
Sections Leak	Jan. 15	88
Railroad		
Bronzes Are Cast in Permanent Molds	Jan. 1	104
Castings, Steel Foundry Specializes in	June 15	42
Castings, Steel Foundry Specializes in	July 1	113
Railroads Should Have Better Consideration	Dec. 13	78
Railway Stations, Castings Add Artistic Touch To	Feb. 1	97
Ramming May Cause Defects in Radiator Castings	Sept. 1	118
Ramming Molds, Describes Method of	March 1	134
Ransome Grinding Machine Co., Uses Belt Guard on New Machine	Aug. 15	84
Ransom Mfg. Co. Designs New Grinders	March 15	116
Ratio of Volume to Surface Area, Gives Tensile and Transverse Strength Relations to	April 1	111
Reactions		
In Malleabilizing Castings, Outlines	April 1	129
Of Metal in Sand Penetration, Explains	Aug. 1	93
When Mill Scale Is Added to Malleable Iron Bath	Nov. 15	61
Reagents for Deep Etching of Brass, Gives	July 1	92
Rebonding Properties of Clays, Studies	Sept. 15	57
Record System for Foundries, Outlines Production	Aug. 15	71
Red Brass		
Part I, Preventing Unsoundness in Bronzes and	Aug. 1	84
Part II, Preventing Unsoundness in Bronzes and	Sept. 1	108
Part III, Preventing Unsoundness in Bronzes and	Oct. 15	75
Part IV, Preventing Unsoundness in Bronzes and	Nov. 15	47
Part V, Preventing Unsoundness in Bronzes and	Dec. 15	48
Reduced Accident Rates Lower Insurance Costs	Oct. 15	90
Reducer and Chain, Elevator is Driven by	March 15	116
Reduces Production Costs With a New Steel Foundry	Dec. 15	44
Reducing Furnace Atmosphere May Cause Shrinkage	Aug. 1	84
Refines Grain of Aluminum Alloys	Nov. 15	75
Reflectors Used For Foundry Lighting	Oct. 1	81
Refractories, Harbison-Walker Refractories Co., Publishes Book on	Feb. 15	111
Refractoriness by Adding Silica Sand, Improves	Sept. 15	64
Refractoriness, Tests Sand	Sept. 15	79
Refractory Life in Electric Furnace, Increases	May 15	61
Refrigerator Castings, Explains Method of Molding	Nov. 1	80
Regional Meeting Attracts Midwestern Foundrymen	April 15	72
Regulation of Steel Castings Industry, Advises	June 1	140
Regulator, Constant Flow Is Given by	Dec. 1	106
Relation Is Direct	Dec. 1	71
Repairs the Mold	April 15	80
Reports Progress on Costs	June 1	131
Requirements for Ideal Gear Blanks, Gives	Aug. 15	78
Research		
Aids Industry, Metallurgical	Aug. 15	73
Aluminum Co. of America Opens Laboratory for Aluminum	June 15	60
Would Improve Steel Castings	July 1	124
Reveals a Way to Light the Foundry Floor	April 1	145
Reverberatory Furnace Practice for Bronze, Outlines	Aug. 15	78
Reverberatory Nonferrous Furnaces, Outlines Melting Practice for	Sept. 15	59
Ribs and Fins Used to Aid Cooling	Dec. 1	72
Richard-Wilcox Mfg. Co. Celebrates 50th Anniversary	March 1	142
Ring Blanks, Gives Cupola Practice For	June 15	63
Ring Castings, Melting Is Slow in Producing	July 1	108
Rings Individually, Cast Piston	Jan. 15	64
Rings, Molds Piston	Aug. 15	65
Risering of Aluminum Castings, Discusses	Dec. 15	52
Risers, Discusses Position of Blind	Dec. 15	65
Road Markers Tell Historical Settings, Cast Iron	April 15	85
Roads, Castings Build	Feb. 1	129
Robbins & Meyers, Inc.		
Describes Furnace Practice at	Nov. 15	51
Designs New Electric Hoist	Jan. 1	132
Introduces New Small Hoist	Aug. 1	120
Robertson Shackles, Gives Views of	April 1	111
Rockwell Tester Is Not Easily Applicable to Gray Iron	Nov. 1	86
Roll		
Allow for Finish on	Dec. 1	89
Cast Chill	Nov. 15	60
Casting, Describes Head Used on	April 1	128
Castings in a Chill, Cast	April 1	128
Cracks, Chilled	June 1	156
Molds Chill	Nov. 15	57
Rolling Machinery Is Made of Castings	June 15	41
Rolls		
Cause Trouble, Blows in Cast Iron	Oct. 1	91
Crack, Chilled	Sept. 15	65
Device Avoids Scum During Solidification of	Sept. 15	79
Rotary French Furnace Uses Powdered Fuel	Nov. 15	79
Rotary Furnace Uses Powdered Coal	Aug. 15	82
Rotor Air Tool Co., Introduces Portable Grinder	Jan. 15	107
Rotor Air Tool Co. Introduces Tool With Many Uses	Dec. 1	106
Runners, Aluminum Pan Needs Many	May 15	60
Runners Are Staggered for Clean Castings	Dec. 15	76
Rust		
Causes Trouble	June 15	61
On Iron Insert Causes Blow	Oct. 15	62
Proof Cast Iron Is Not Made in the Cupola	Oct. 1	92

S

	Month	Page
Safety		
Engineering Conference Held at Pittsburgh	May 15	89
Has Been Systematized in Foundries	Sept. 15	80
How We Secured	Jan. 15	92
Saginaw Malleable Iron Division, General Motors Corp., Description of	May 15	61
St. Louis District Foundrymen's Club Discusses Technical Control	July 15	67
St. Louis District Foundry Club Elects Officers	July 1	122
St. Louis Malleable Casting Co., Description of	May 1	214
Sal-Ammoniac Congulates Drosses in Light Alloys	Nov. 15	67
Sale Price Determined by Foundry Costs, Casting	Oct. 15	59
Sales Efforts, A Foundry Budget Directs Operating and	Nov. 15	53
Sand		
Annealing Boxes Difficult to Cast in Green	Sept. 1	119
Burns to Face of Casting	Sept. 15	64
Causes Dirty Castings	Feb. 1	116
Causes Leaks in Radiator Castings	March 15	100
Causes Pinholes in Gland Casting	Feb. 1	117
Causes Sponginess on Plate Castings	Sept. 15	65
Committees Review Work on	June 1	136
Conditioning Equipment, Explains Value of	July 15	59
Controls Increases Economy in the Foundry—Part I	March 15	84
Control Increases Economy in the Foundry—Part II	April 15	74
Control Increases Economy in the Foundry—Part III	May 15	56
Control Increases Economy in the Foundry—Part IV	June 15	56
Control Increases Economy in the Foundry—Part V	July 15	59
Control Increases Economy in the Foundry—Part VI	Aug. 15	52
Control Increases Economy in the Foundry—Part VII	Sept. 15	57

	Month	Page
Sand		
Cores, Gives Mixtures for Oil	April 1	127
Cores Used in Casting Alloy Steel Chains, Oil	June 1	159
Data, Gives Brass	April 1	130
Examines Molding	July 15	85
For Aluminum Castings, Controls	Dec. 1	72
For Bronze Tablets, Prepares Facing	March 15	118
For Matchplates Is Fine, Facing	Dec. 1	90
Gives Analysis of Medium, Low Bond	April 15	74
Gives Lift, New	Nov. 15	59
Grains, Screen Analysis Determines Distribution of	Jan. 15	78
Has No Bond, Sharp	July 1	105
Is Cause of Holes in Flange Casting	Dec. 1	88
Loss and Facing Needs in a Foundry, Production	June 15	56
Machine Has Compact Design, New	June 15	83
Mix Causes Dirt	June 1	155
Mixers, Describes Many Types of	Feb. 1	105
Mixers, Describes Mechanical	Jan. 15	81
Mixing Machine, Introduces a New	Oct. 15	93
Mixture for Furnace Leg Cores, Gives	May 1	201
Mixture for Hub Core, Gives	April 15	91
Mixture for Machine Made Cores	Jan. 15	89
Mixture for Making Waterfront Cores	Feb. 1	116
Mixture for Small Brass Castings, Gives	Jan. 15	89
Mixture Is High, Moisture in Steel	Aug. 1	92
Mixtures, Aluminum Castings Require Proper	Dec. 15	52
Mixtures, Gives	May 15	70
Mixtures, Gives Comparative Data on	April 15	74
Mixtures, Gives Steel Foundry	Feb. 15	92
Mixtures, Gives Steel Molding	June 15	42
Mixtures, Reduces Costs by Controlling Oil	April 1	125
Mixtures Used in Pipe Foundries	July 1	98
Mixtures Vary	Nov. 15	61
Molds, Casts Pipe Centrifugally in	July 1	98
No Specifications Known For Steel	Feb. 1	117
Particles, Shows Influence of Fine	April 15	74
Problem in California, Discusses	Feb. 15	108
Producer Installs Laboratory	May 15	81
Producers Establish Laboratory	June 1	174
Rammer Has New Valve Design	Aug. 1	120
Refractoriness, Tests	Sept. 15	79
Required for Brass Bushings, Describes	Dec. 15	66
Requires a Proper Base, Synthetic Molding	Dec. 1	80
Shows Penetration of Steel Cast Against	Aug. 1	93
Steel Foundrymen Consider	June 1	138
Sticking to Casting, Gives Method to Avoid	Aug. 1	92
Sticks to Bells on Water Pipes	Aug. 15	65
Sticks to Boxes	Dec. 15	63
Sticks to Pattern	June 1	155
Sticks to Pattern	July 1	106
To Output, Relation of	Jan. 15	87
Testing Methods, Describes New	March 15	113
Unit to Carnegie Tech, Presents	July 1	116
Washes From Gates	Dec. 1	87
Wet Method of Preparing	Feb. 15	97
Sandblast and Core Sand, Specifications Desired For	Oct. 1	90
Sandblast Helmet Is Made of Rubber	Dec. 1	105
Sander, Redesigns Bench	Sept. 1	127
Sands, Explains Physical Components of	Jan. 1	94
Sands, Publication Describes Indiana	May 15	87
Sash Weights, Molds	Nov. 1	107
Sash Weights, Tin Cans Used in Charge For	Dec. 1	88
Sawdust to Fire Core Ovens, Uses	Aug. 15	48
Saw Has Safety Guard, Electric Hand	June 1	180
Schools Require Foundry Practice Course, Engineering	June 15	48
Schwartz, Contributions To Industry Win Award for H. A.	Jan. 1	127
Scoop Without Dismounting, Operates Power	June 15	82
Scrap		
Explains Classification of Pig Iron and	Oct. 15	66
In Steel Foundries, Study Use of	Dec. 15	82
Uses Grate Bar	June 1	156
Uses Structural Steel	Sept. 15	64
With Care, Select Brass	Sept. 15	72
Screen		
Analysis Determines Distribution of Sand Grains	Jan. 15	78
Describes Compressed-Air Driven Sand	Jan. 1	94
Introduces a New Type Foundry	June 1	179
Is Added to Sand Machine, New	June 1	178
Scullin Steel Co., Description of	June 15	42
Scullin Steel Co., Description of	July 1	113
Seacoals, Comparison of Two	July 15	59
Seacoal for Small Brass Castings, Should Not Use	Jan. 15	89
Seacoal, Gives Analysis of	Jan. 1	110
Segregation Causes Defects	Aug. 1	98
Select Brass Scrap With Care	Sept. 15	72
Semisteel, Makes	July 1	106
Shear Block Designs, Illustrations Showing	Sept. 1	94
Shear, Shows Variation Between Bond and	April 15	74
Sheave Cracks, Chilled	Aug. 1	100
Sheave Wheels Crack	Nov. 15	60
Shell on Wheel Caused by Steam or Gas	Jan. 1	110
Shock Tests for Gray Iron, Discusses	Nov. 1	93
Shop Course Attracts Discussion	June 1	132
Shop Materials Move	June 1	138
Shot, Bill Discovers Many Classes of	Nov. 1	110
Shovel Die, Face Is Not Smooth on	Dec. 15	64
Shows		
Average Loss	July 15	73
Penetration of Steel Cast Against Sand	Aug. 1	93
Steps in Foundry Practice	July 15	63
Shrink Bob Is in Cope	Dec. 15	65
Shrink Causes Porosity	Feb. 1	118
Shrinkage		
And Piping, Explains Effect of Elements on	Dec. 1	76
Castings Show	Aug. 15	66
Cavities, Bill Diagnoses Some	April 1	140
Explains Meaning of Incipient	Aug. 1	84
Flaws Are Due to Internal	March 1	123
In Angle, Stop	Jan. 15	87
In Malleable Castings, Low Manganese May Cause	May 1	202
Is Determined	Oct. 15	84
Takes Place	Nov. 1	109
Shrinks Cause Defect in Wheel	July 15	74
Shrinks Cause Trouble	April 1	128
Silica Flour Is Used on Cores for Bronze Castings, Molasses and	Sept. 15	65
Silica Sand, Improves Refractoriness by Adding	Sept. 15	64
Silicon		
Alloy Used for Ornamental Castings, Aluminum	Sept. 1	90
Alloys, Properties of High	Jan. 1	121
Aluminum Alloy, French Foundry Cast	March 1	121
As Deoxidizers, Uses Manganese and	Sept. 15	79
Bronze Castings, Explains Type of Core For	June 15	64
Causes Trouble in Nonferrous Mixtures, Too Much	Oct. 15	75
In Cast Iron, Report on Quantitative Measuring of	June 15	79
Increases Chill, Lower	March 1	124
Irons, Gives Properties of High	May 1	200
Is Low	Dec. 1	89
Plus Carbon Content, Classifies Cast Irons on	April 1	111
Zinc-Copper Alloy, a New	Dec. 15	60
Sivyer and Nugent Steel Foundries Merge	March 1	141
Sivyer Steel Casting Co. Elects Officers	March 15	115
Skeins, Malleable Foundry Makes Wagon	May 1	214
Skin Dried Molds Reduce Pitting	July 15	78
Skin Machining, Explains Effect of	Oct. 15	62
Slag Trouble, Cupola Has	Dec. 15	63
Smith-Emery Co., Gives Views on Depression	July 15	86
Smith & Richardson Mfg. Co. Introduces New Method for Coring Holes for Anchoring Babbitt	Sept. 15	83
Smokestack		
I, Bill Tells of Molding a	July 15	79
II, Bill Tells of Molding a	Aug. 1	114
III, Bill Tells of Molding a	Aug. 15	75
IV, Bill Tells of Molding a	Sept. 1	121
Soap Molds Are Made of Babbitt	Oct. 1	93
Societe des Entreprises Speciales de Chauffage Industriel Develops Rotary Furnace	Nov. 15	79
Society of Automotive Engineers Appoints Executives	Aug. 1	97
Society's Activities Are Wide	July 15	64
Sodium Carbonate Used to Remove Gases	March 1	123
Soho Foundry Celebrates 200th Anniversary	Aug. 1	117
Solidification		
Of Bronze and Red Brass Castings, Explains	Sept. 1	108
Of Bronze in Centrifugally Cast Gear Blanks, Explains	Sept. 15	59
Of Cast Iron in Various Processes, Explains	Feb. 15	107
Of Locomotive Driving Brasses, Describes	Feb. 1	118
Of Nonferrous Alloys, Explains	Feb. 15	73
Sorts Aluminum Scrap	Aug. 15	78
Sound Malleable Iron Castings Depend on Feeding Methods	Oct. 1	76
Southern Foundry Concentrates on Special Pipe Shapes	Oct. 15	54
Southern Metal Trade Association Will Hold Trade Practice Conference	March 1	122
Southern States Safety Conference Held Under Auspices of Birmingham Safety Council	April 15	102
Spark Arresters, Bill Comments on High Hats and	May 1	204
Spark Test, Classifies Alloy Scrap by	July 1	120
Special Pipe Shapes, Southern Foundry Concentrates on	Oct. 15	64
Specific Gravities of Five Gray Irons	Nov. 1	86
Specifications		
Are Known For Steel Molding Sand, No	Feb. 1	117
Comments on Copper Alloy Ingot	Feb. 1	130
Desired For Sandblast and Core Sand	Oct. 1	90
For Light Alloy Castings	Jan. 1	121
For Nickel Silver, Gives	Jan. 15	90
For Water Pipe, Gives	May 15	75
Uniform Methods of Analysis Should Govern Core Oil	Feb. 1	121
Specifies Only Iron Pipe	Nov. 15	88
Specks in Casting, Explains Cause of Black	Dec. 15	66
Spectrogram Explains Meaning of	May 1	197
Spectrometry Over Annealed Steel Is Recognized Through X-Ray	May 1	197
Speed Reducers Are Made in Many Ratios	March 15	117
Speed Work in New Caterpillar Tractor Shop	May 15	56
Sphere Taxes Foundry Ingenuity, Large Aluminum	Feb. 1	103
Spin 10 Miles of Cast Pipe Daily, Machines	May 15	75
Sponginess on Plate Casting, Sand Causes	Sept. 15	65
Spout, Gives Dimensions of Pouring	Nov. 1	101
Sprocket Wheels, Lower Silicon Increases Chill in	March 1	124
Sprues Made on Job, Horn	Aug. 1	99
Squeezer Molding Machine, Studies	Sept. 15	79
Stack Green Sand Piston Ring Molds	Nov. 1	108
Stacy Engineering Co., Merges With P. H. & F. M. Roots Co.	Feb. 15	72
Stained, Aluminum Is	Dec. 15	66
Stainless, Steel Is	Dec. 15	65
Stainless Steels, Gives Compositions of	Jan. 15	88
Standard Electrical Tool Co., Introduces Production Grinder With Safety Feature	June 15	82
Standard For Pipe Fittings, American Standards Association Develops	Feb. 15	72
Standard Trade Customs Adopted by Steel Founders' Society	June 15	65
Standardized Cost Systems Must Be Applied Uniformly	Oct. 1	88
Standards		
For Cast Iron Pipe, Gives	Nov. 1	42
For Various Grades of Cast Iron, Gives	Feb. 1	94
Pacific Foundries Adopt	June 1	173
Yearbook Lists Accomplishments	May 15	87

	Month	Page
Statuary, Describes Molding of	Feb. 1	112
Staveley Coal & Iron Co. Ltd. Will Make Sand Spun Pipe	Nov. 15	66
Steam or Gas Causes Shell on Wheel	Jan. 1	110
Steel		
Annealing Bottom Castings, Gives Life of	April 1	129
Cast Against Sand, Shows Penetration of	Aug. 1	93
Casting for Diver, Bill Hears of	June 15	76
Casting Production, Gives Figures on	Feb. 15	108
Castings, Part I, Compares Properties of Various Alloy	Jan. 1	100
Castings, Part II, Compares Properties of Various Alloy	Jan. 15	71
Castings Crack	June 1	157
Castings, Desires Information on Manufacture of Electric	March 15	100
Castings Production Increases	July 1	120
Castings, Research Would Improve	July 1	124
Castings To Be Marked "Cast Steel"	Nov. 15	76
Chains, Oil Sand Cores Used in Casting Alloy	June 1	159
Compares Methods For Producing Electric Furnace	Feb. 1	100
Course Holds Interest	June 1	129
Data, Gives Alloy	May 15	85
For Casting, Comments on Production of Electric	Feb. 15	103
Founders Discuss Merchandising	March 15	108
Founders Report on Business	Feb. 15	80
Founders See Good Business	Jan. 1	107
Founders See Pickup in Last Quarter	July 15	56
Foundries Consolidate, Three	July 1	123
Foundries, Study Use of Scrap in	Dec. 15	82
Foundry Casts Anvil Block	Nov. 15	73
Foundry Industry, Complexities Confront the	July 15	52
Foundry, Reduces Production Costs With a New	Dec. 15	44
Foundry Sand Mixtures, Gives	Feb. 15	92
Foundry Sand Mixtures Vary	Nov. 15	61
Foundry Specializes in Railrond Castings	June 15	42
Foundry Specializes in Railroad Castings	July 1	113
Foundry Uses Aluminum Oxide Cores	March 1	125
Foundry? What Is the Undeveloped Wealth of the	April 1	137
Foundrymen Should Study Pattern Costs	Aug. 15	56
Group Sees Pickup	Oct. 1	98
Group Studies Selling Problems	April 15	78
Heat Treatment Determines Properties of Manganese	Sept. 1	102
In Electric Furnace, Melts	April 1	118
Ingot Molds Not Successful	June 15	62
In Stoveplate, Use	April 1	129
Is Recognized Through X-Ray Spectrometry, Over Annealed	May 1	197
Is Stainless	Dec. 15	65
Melting Practice Outlines	May 1	202
Molding Sand, No Specifications Known for	Feb. 1	117
Molds, Bronze Gear Blanks Poured in Spinning	Sept. 15	59
New Foundry Casts Alloy	Sept. 15	61
Observe Properties of	July 15	66
Penetration Into Core, Explains	April 15	91
Plate in Vises, Outlines Method for Securing	Aug. 15	66
Sand Mixture Is High, Moisture	Aug. 1	92
Scrap Additions, High Grade Cast Iron Produced By Large	Jan. 1	112
Scrap, Uses Structural	Sept. 15	64
Shaft Cannot Be Used As Chill in Casting Cams	Oct. 1	91
Wheels Crack, Bill Tells Why	March 1	131
Steel Founders' Society of America		
Announces Meeting Date	Aug. 15	81
Holds Meeting at Cleveland	June 1	140
Meets at White Sulphur Springs	July 15	56
Meets in Chicago	Feb. 15	80
Meets in New York	Nov. 15	74
Meets in Pittsburgh	Jan. 1	107
Publishes Results of Survey	July 1	124
Sees Pickup	Oct. 1	98
Standard Trade Customs Adopted by	June 15	65
Studies Selling Problems	April 15	78
To Meet in Chicago	Jan. 15	108
To Meet in New York	Oct. 15	91
Steels, Gives Compositions of Stainless	Jan. 15	88
Stevens Issues a New Book, Frederic B	May 15	87
Stone Is Foundry Product, Composing	Sept. 1	89
Stops the Tap Hole	Nov. 1	101
Stove Castings, Gives Melting Data on Brass Gasoline	Aug. 15	67
Stove Grates, Gives Chemical Composition of	March 15	98
Stoveplate in the Electric Furnace, Melts Gray Iron For	Aug. 1	88
Stoveplate, Use Steel in	April 1	129
Stoveplates Crack	Aug. 15	64
Street Signs, District of Columbia Tests	March 1	114
Strength of Cast Iron, Steel Increases Density and	Oct. 15	79
Strength of Various Test Bars	July 1	94
Strengths of Various Aluminum Alloys, Gives	Feb. 15	93
Stress-Strain Diagrams for Different Types of Cast Iron, Transverse Test	July 1	94
Stress-Strain Diagrams for Different Tyes of Cast Iron, Gives Complete Tensile	April 1	111
Stresses on Cast Iron Effect of Repeated	May 1	209
Strong Aluminum Castings Are Obtained by Improved Foundry Practice—Part I	Dec. 1	72
Strong Aluminum Castings Are Obtained by Improved Foundry Practice—Part II	Dec. 15	52
Structural		
Changes in Manganese Steel, Explains	Sept. 1	102
Components of Bronze for Gears, Gives	Sept. 15	59
Steel Scrap, Uses	Sept. 15	64
Structure		
Due to Use of Chills at Various Sections, Shows	Dec. 15	52
Of Bronze, Examines	Aug. 15	78
Of Gray Iron, Explains	March 1	107
Of High Phosphorus Gray Irons, Explains	June 1	152
Of Sand, Explains Physical	Jan. 1	94
On Impact and Endurance Tests, Describes Effect of	Oct. 1	83
Stud in Casting, Describes Method for Securing	June 15	61
Studebaker Corp., Description of Core Room in Plant of	Aug. 15	58
Studies Cast Iron Structures	Oct. 15	84
Studies Rebonding Properties of Clay	Sept. 15	57
Sulphur in Nonferrous Castings, Describes Behavior of	Oct. 15	75
Superheated Steam and High Pressure, Gives Bronze Mixture to Withstand	Aug. 1	103
Surface		
Area Relationship, Gives Volume to	April 1	111
Becomes Pitted	July 15	78
Clay, Gives Analysis of	April 15	74
Is Defective on Shovel Die	Dec. 15	64
Plate, Molds	Sept. 15	84
Required, Rough	Dec. 1	89
Surfaces Defective, Aluminum Matchplate	Nov. 1	109
Survey of Gray Iron Foundries, Comments on Government	Jan. 1	128
Survey on New England Ready, Final Volume of	June 1	154
Surveys Foundry Industry in Czechoslovakia	Sept. 1	98
Sweep Molding, Describes	July 15	82
Sweeping of a Gear Blank, Bill Explains	Sept. 15	75
Swindell & Bros. and American Dressler Tunnel Kilns, Inc., Combine, William	July 1	116
Synthetic		
Gray Iron, Carbon Is Controlled in	Nov. 15	51
Molding Sand Requires a Proper Base	Dec. 1	80
Molding Sands, Outlines Procedure for Manufacture of	Aug. 15	52

T

	Month	Page
Tablets		
And Fine Brass Work, Describes Sand for	Sept. 15	69
And Nameplates, Gives Alloys for	Aug. 1	103
Honor Kentucky Pioneers	Nov. 15	65
Prepares Facing Sand for Bronze	March 15	118
Tabor Mfg. Co., Equips Core Machine With Ball Bearings	June 15	83
Tabor Mfg. Co. Introduces New Type Molding Machine	Sept. 1	127
Tailstock Bases Warp	Nov. 15	61
Tap Hole Dimensions, Gives	Nov. 1	101
Technical Control Is a Necessary Factor	July 15	67
Technical School Graduates, Comments on Foundry	Aug. 15	68
Technician, Believe It or Not—The Foundry Industry Needs The	Oct. 1	109
Tee Casting, Inserts Cause Blows in	Dec. 1	88
Telephone Communication, Castings Aid Intercontinental	Aug. 1	83
Temperature		
Affects Gray Cast Iron, Long Heating Periods at High	Oct. 1	103
Causes Copper Ingots to Swell, Pouring	Oct. 1	93
For Bronze Bushings, Gives Pouring	Feb. 15	93
For Core Drying, Gives	July 1	109
For Pouring Malleable Iron in Permanent Molds, Gives	March 15	109
Is Low	Dec. 15	66
Of Cast Iron, Gives Pouring	Feb. 1	117
Small Iron Charges Give High	May 1	201
Temperatures in Continuous Malleable Annealing Furnace, Gives	Dec. 1	66
Template Measures Surface Profile, New	June 1	179
Tensile		
And Transverse Strength Relations to Ratio of Volume to Surface Area, Curves Show	April 1	111
Strengths of Gray Cast Iron After Various Heat Treatments	Oct. 1	103
Stress-Strain Diagrams for Different Types of Cast Iron, Gives Complete	April 1	111
Tests, Gives Routine	April 1	111
Tension and Transverse Test Bars, Sketch of	April 1	111
Tension Causes Breakage, Internal	May 15	85
Terminal Engineering Co. Markets New Electric Crane	Sept. 1	128
Test Bar and Casting, Explains Relation Between	Dec. 1	72
Test Bars		
Discusses Gray Iron	March 1	107
Sketch of Tension and Transverse	April 1	111
Used on Gray Iron, Describes	July 1	94
Testing Apparatus, Describes Tensile	April 1	111
Testing Method, Describes New Sand	March 15	113
Tests		
Cast Iron Pipe	Aug. 1	104
Describes Sand	March 15	84
Describes Various Sand	April 15	74
For Alloy Steel Chains	June 1	159
Involves Many Difficulties—Part I, Correlation of Mechanical	Oct. 15	62
Involves Many Difficulties—Part II, Correlation of Mechanical	Nov. 1	93
Oil Sand Mixtures	April 1	125
Sand Refractoriness	Sept. 15	79
Textile Machine Works, Reading Pa., Describes	Jan. 1	88
Theaters Use Many Castings	Jan. 15	63
THE FOUNDRY To Present Series On Engineering Properties of Gray Iron	Jan. 15	103
The Laboratory Races Ahead of Industry	Dec. 15	69
Thermocouples For Brass Foundries, Designs	Aug. 15	82
Thermostat Is Control For Melting	Aug. 1	121
Theory of Fine Graphite Formation, Explains	Oct. 15	62
Thin Castings Are Hard	March 1	123
Three Men Charge 150 Tons Daily	Feb. 15	105
Three Steel Foundries Consolidate	July 1	123
Time-Temperature Curves for Various Size Test Pieces	Dec. 1	76
Tin Cans Used in Charge For Sash Weights	Dec. 1	88
Tire Molds, Makes	Oct. 1	92
Titanium Oxide Eliminated Hard Spots, Pig Iron Containing High	April 1	143

	Month	Page
Titgen-Eastwood Co., Philadelphia, Issues Equipment Catalog	Feb. 1	132
Toledo Pressed Steel Co., Introduces New Type of Horses	July 15	88
Tools, Explains Use of Molding	March 15	93
Torque Tube Flanges, Describes Molding of	Oct. 1	76
Toughness in Lawn Mower Castings, Improves	Aug. 15	65
Toys, Imagination Builds Business in Cast Iron	March 15	74
Tracing the Cause of Defects	June 15	75
Tractor Shop, Speed Work in New Caterpillar	May 15	50
Trade Customs Adopted by Steel Founders' Society, Standard	June 15	65
Trade Practices, Comments Upon Enforcement of	Jan. 1	128
Training? Should Schools Teach Engineers Foundry Practice?, Foundry	March 15	80
Transcribing Machine May Be Used for Metal Pattern Work	Nov. 15	80
Transformation Points Are Discussed	Dec. 1	76
Transformation Points Studied	Nov. 15	75
Transmission, Designs New Variable Speed	Dec. 15	81
Transverse		
Strengths of Gray Cast Iron After Various Heat Treatments	Oct. 1	103
Strength Test, Discusses	Nov. 1	93
Strength of Aluminum Castings, Effect of Pouring Temperatures on	Dec. 15	52
Test Bars, Sketch of Tension and	April 1	111
Test Formula, Explains Derivation of	Nov. 1	93
Test Values, Minimum	July 1	94
Trays, Gives Metal Mixture For Annealing	March 15	99
Tri-State Foundrymen's Association Elects Officers	March 1	142
Trolley Has Flexibility, Motor Driven	Aug. 1	121
Troughs For Livestock Are Made of Castings	July 1	87
Tuyere Construction, Describes	April 1	116
Tuyeres, Bill Favors Greater Number of	Dec. 15	71
Twin City Foundrymen's Association Elects Officers	April 1	151
Types of Sand, Explains Use of Various	Jan. 1	94

U

Ulster County Foundry Corp. Completes 100 Years of Business	Oct. 15	91
Uniform Methods of Analysis Should Govern Core Oil Specifications	Feb. 1	121
Uniforms, Workers in Steel Foundry Wear	Sept. 15	61
Unify Gray Iron Costs		
Part I	Jan. 15	69
Part II	Feb. 1	109
Part III	Feb. 15	81
United States Aluminum Co., Describes Shop of	Sept. 1	90
United States Electrical Tool Co.		
Introduces New Cleaner With Dual Operation	Aug. 15	84
Introduces V-disk Transmission Grinder	Jan. 15	106
Makes Changes in Flexible Shaft Machine	Sept. 1	127
United States Pipe & Foundry Co., Acquires the Davies & Thomas Co.	Nov. 1	116
United States Pipe & Foundry Co., Completes Laboratory	Aug. 1	117
Universal Joints, Cast Pipe With	Nov. 15	42
University of Wisconsin Holds Fourth Annual Foundry Conference	Feb. 15	94
Unsoundness in Bronzes and Red Brass		
Part I Preventing	Aug. 1	84
Part II, Preventing	Sept. 1	108
Part III, Preventing	Oct. 15	75
Part IV, Preventing	Nov. 15	47
Part V, Preventing	Dec. 15	48
Urges Local Groups To Co-operate	Aug. 1	118
Use of Aluminum Increases Industrially	Oct. 15	90

V

V-Belt Drive Designs	Sept. 1	127
Vacuum Cleaner Has Many Applications, New	June 1	180
Vacuum Pan, Describes Molding of	May 15	60
Values Determined by Various Investigators of Relation of Mechanical Tests	Sept. 1	94
Valve		
Bodies, Gives Alloys for	April 15	69
Castings, Core Causes Leaks in	June 15	62
Mold, Explains Venting of	Jan. 15	86
Seats Leak	Sept. 15	69
Valves, Suggests Remedy for Leaky	July 1	106
Van Dorn Electrical Tool Co., Introduces New Grinder	June 1	179
Vanadium Is Used	Dec. 15	64
Vanadium on Steel, Describes Effect of	Jan. 1	100
Variables in Aluminum Foundry Practice, Enumerates	Dec. 1	72
Variation in Gas Composition, Gives	Nov. 15	47
Variation in Weight For Small Castings, Gives	Oct. 1	90
Vaults Foil the Cracksman, Castings in Safety	Sept. 15	47
Ventilation for Taxi Stands, Castings Provide	March 1	97
Vent Under Drag, Lacks	Jan. 15	86
Vent Wires, Describes Various Kinds of	March 1	136
Vents Cause Ingot Mold Defects, Plugged	Jan. 1	110
Vents, Cores Should Have Sufficient	Dec. 1	72
Vibrator Has New Features, Valve Type	Nov. 15	80
Vibrators Are Light Weight, New Type	Sept. 1	128
Vises, Outlines Method For Securing Steel Plate in	Aug. 15	66
Vises Show Defects	Oct. 15	80
Vogt Machine Co., Celebrates Golden Anniversary, Henry	Aug. 15	68
Volume Indicators, Describes Construction of Air	Feb. 15	107
Volume To Surface Area Relationship, Gives	April 1	111
Vulcan Mold & Iron Co., Describes Charging Practice at	Feb. 15	105

W

Wagon Skeins, Malleable Foundry Makes	May 1	214
Walcott Machine Co., Develops Transcribing Machine	Nov. 15	80
Wall Thickness, Should Avoid Abrupt Changes in	Dec. 1	72
Wants to Remove Gases	March 1	123
Warns Against Patent Infringement	Aug. 15	80
Warp in the Mold, Long Beds	Feb. 1	126
Warpage of Lamp Post Castings, Explains	Aug. 1	92
Warping of Malleable Castings, Explains	April 15	91
Warps in Center, Core Plate	June 15	61
Warps in Cooling, Curved Liner Plate	Oct. 1	90
Washed Metal Used As Carburizer In Electric Furnace	Feb. 1	100
Waterfront, Core Causes Leak in	Feb. 1	116
Waterfronts Are Not Water Tight, Brass	March 1	126
Water Jacket Core, Explains Method of Eliminating Blow from	May 15	73
Waterwheel, Describes Molding Practice for	Feb. 1	116
Waukegan Foundry Co., Awards Diplomas to Employes	April 1	149
Weber Serves One Company for 68 Years, Herman	Dec. 1	104
Weights, Describes Types of Mold	May 15	65
Weights for Molds, Calculates	June 15	79
Welding Blowpipe Is a Compact Unit	April 15	102
Welding Rod Has Low Melting Point	Oct. 1	120
Welds Aluminum Castings	June 15	55
Welland Canal, Castings Lock Ships Through New	Oct. 1	75
Westinghouse Electric & Mfg. Co., Describes Molding of Lamp Posts at	Dec. 1	82
Westinghouse, Memorial Commemorates Achievements of	Nov. 1	98
Wet Method of Preparing Sand	Feb. 15	97
Wet Mold Causes Trouble	Oct. 1	91
What Is the Undeveloped Wealth of the Steel Foundry?	April 1	137
Wheel		
Caused by Steam or Gas, Shell on	Jan. 1	110
Describes Gating of Mine Car	Feb. 15	92
Shrinks Cause Defect in	July 15	74
Wheelbarrows, Bureau of Standards Issues Bulletin on Simplified Practice on	June 15	81
Wheeling Mold & Foundry Co., Drops Merger Plans	March 1	120
Wheels		
Are Molded, Bill Tells How Barrow	Nov. 15	70
Crack, Bill Tells Why Steel	March 1	121
Gives Metal Mixture for Mine Car	March 15	98
Lower Silicon Increases Chill in Sprocket	March 1	124
When a Stone Is not a Stone Look to the Foundry	Sept. 1	89
Where Are the Young Foundrymen?	Sept. 15	73
Where East and West Meet on a Common Footing	Oct. 15	68
White Iron		
Crusher Jaw, Difficulty Is Encountered With	Oct. 15	80
Data, Wants	May 15	69
First, Melt	March 15	98
Whiting Corp.		
Acquires American Rights to German Rotary Furnace	Aug. 15	82
Acquires Goslin-Birmingham Mfg. Co.	June 1	176
Forms Canadian Subsidiary	June 1	180
Makes Changes in Sales Personnel	July 1	123
Publishes Crane Engineering Handbook	Nov. 15	72
Milwaukee Will Hold Apprentice Contests	Dec. 15	80
William Laidlaw, Inc., Introduces Low Pressure Hydraulic Feed	Aug. 15	83
Willsea Works, Rochester, N. Y., Develops New Type Core Oven Heater	Oct. 15	93
Wilson Foundry & Machine Co., Describes Briquetting Machine at	July 15	68
Win A. F. A. Apprentice Contests	Aug. 1	113
Wing-Nuts Are Described, Cores for Malleable Iron	Sept. 15	60
Wing Nuts, Describes Manufacture of	Nov. 1	108
Wisconsin Gray Iron Foundry Group		
Hears Committee Reports	Nov. 15	54
Meets	June 15	59
Hears Talk on Unemployment	Dec. 1	104
Holds April Meeting	May 1	218
Holds July Meeting	Aug. 15	86
Wisconsin Meeting Features Foundry Problems	Feb. 15	93
Wisconsin University Plans Foundry Conference	Feb. 1	134
Worthington Pump & Machinery Co. Designs V-Belt Drive	Sept. 1	127
Worthington Pump & Machinery Corp. Acquires Gilman Mfg. Co.	Nov. 15	74
Wrinkles Due to Chill	June 15	62
Wrought Iron, Castings Aid in Production of	June 15	41

X

X-Ray Is Used to Determine Defects	Dec. 1	72
X-Ray Spectrometry, Over Annealed Steel Is Recognized Through	May 1	197
X-Ray With Portable Apparatus, Castings	Feb. 15	76
X-Ray in the Foundry, Uses	March 15	113

Y

	Month	Page
Yacht, Castings are Used on	Oct. 15	53
Yale & Towne Mfg. Co., Adds Lift-truck Division	June 1	181
Yellow Brass Castings, Gives Alloy For	Jan. 1	111
Yellow Brass Castings, Surface Becomes Pitted in	July 15	78
Yellow Prussiate of Potash Deoxidizes Aluminum Bronze	March 1	126
Yoke, Castings, Loses	Sept. 1	119
Young Bros. Co. Adds to Sales Force	April 1	124
Youngstown Foundry & Machine Co., Elects Officers	March 15	90

Z

	Month	Page
Zinc-Copper Alloy, A New Silicon	Dec. 15	60
Zinc Fumes, Describes Partition for Protection Against	July 15	48

Data Sheets—January-December, 1930

	Month	Page
No. 795—Tentative Standard for Gray Iron for Valves, Flanges and Pipe Fittings	Jan. 1	120
No. 796—Hints for the Core Room	Jan. 1	120
Nos. 797 and 798—Hints For the Coreroom	Jan. 15	96
Nos. 799 and 800—Hints For The Coreroom	Feb. 1	120
Nos. 801 and 802—Hints For The Coreroom	Feb. 15	96
Nos. 803 and 804—Need Aluminum Temperature Control	March 1	128
Nos. 805 and 806—Need Aluminum Temperature Control	March 15	106
Nos. 807 and 808—Hints for the Core Room	April 1	136
Nos. 809 and 810—Hints For the Core Room	April 15	88
Foundry Data Sheets Nos. 811 and 812—Hints for the Core Room	May 1	208
Nos. 813 and 814—Specifications for Steel Castings for Valves and Fittings for High Temperature Service	May 15	72
Nos. 815 and 816—Specifications For Steel Castings for Valves and Fittings for High Temperature Service	June 1	168
Nos. 817 and 818—Conversion Tables for American Measures	June 15	68
Nos. 819 and 820—Monel Metal and Nickel Foundry Practice	July 1	104
Nos. 821 and 822—Monel Metal and Nickel Foundry Practice	July 15	76
No. 823—Monel Metal and Nickel Foundry Practice	Aug. 1	102
No. 824—Proposed Tentative Specifications for Austenitic Manganese Steel Castings	Aug. 1	102
Nos. 825 and 826—Proposed Tentative Specifications for Austenitic Manganese Steel Castings	Aug. 15	70
Nos. 827 and 828—Proposed Tentative Specifications For Magnesium-Base Alloy Sand Castings	Sept. 1	116
No. 829—Proposed Tentative Specifications for Magnesium-Base Alloy Sand Castings	Sept. 15	68
No. 830—How to Make a Simple Blast Gate	Sept. 15	68
Nos. 831 and 832—How To Make a Simple Blast Gate	Oct. 1	108
Nos. 833 and 834—Tentative Specifications for Copper-Base Alloys in Ingot Form for Sand Castings	Oct. 15	86
Nos. 835 and 836—Tentative Specifications For Copper-Base Alloys in Ingot Form for Sand Castings	Nov. 1	100
Nos. 837 and 838—Nonferrous Materials of Construction in Aircraft Engines	Nov. 15	64
Nos. 839 and 840—Nonferrous Materials of Construction in Aircraft Engines	Dec. 1	92
Nos. 841 and 842—Nonferrous Materials of Construction in Aircraft Engines	Dec. 15	62

Author's Index—January-December, 1930

A

Abrahamson, O. E. J.
- Sand Control Increases Economy in the Foundry—Part I — March 15, 84
- Sand Control Increases Economy in the Foundry—Part II — April 15, 74
- Sand Control Increases Economy in the Foundry—Part III — May 15, 56
- Sand Control Increases Economy in the Foundry—Part IV — June 15, 56
- Sand Control Increases Economy in the Foundry—Part V — July 15, 59
- Sand Control Increases Economy in the Foundry—Part VI — Aug. 15, 52
- Sand Control Increases Economy in the Foundry—Part VII — Sept. 15, 57

Arthur, J. W.
- Select Brass Scrap With Care — Sept. 15, 72

B

Batty, George
- Compares Methods For Producing Electric Furnace Steel — Feb. 1, 109
- What is the Undeveloped Wealth of the Steel Foundry? — April 1, 137

Beach, E. W.
- Bake Cylinder Block Cores in Continuous Ovens — Dec. 15, 56

Belt, Robert E.
- Metallurgical Research Aids Industry — Aug. 15, 73

Blakeslee, R. N.
- Melts Steel in Electric Furnace — April 1, 118

Bond, Albert J.
- Tracing the Cause of Defects — June 15, 75

Bremer, Edwin
- Carbon Is Controlled in Synthetic Gray Iron — Nov. 15, 51
- Casting Sale Price Determined by Foundry Costs — Oct. 15, 59
- Casts Piston Rings Individually — Jan. 15, 64
- Cleanliness Is Pride of an Ohio Gray Iron Foundry — Nov. 1, 80
- Gas-fired Horizontal Oven Bakes Cores — Feb. 15, 68
- Layout Aids Nonferrous Production — July 15, 48
- New Foundry Casts Alloy Steel — Sept. 15, 61
- Sound Malleable Iron Castings Depend on Feeding Methods — Oct. 1, 76
- Specializes in Automotive Castings — March 1, 115

Bull, R. A.
- Comments on Production of Electric Steel For Casting — Feb. 15, 103

Burns, Gus
- Nonferrous Mixtures Are Important — Oct. 15, 92
- Prepare Facing Sand for Bronze Tablets — March 15, 118

C

Cheetham, J. H.
- Copper Oxide Eliminates Aluminum — Feb. 1, 99

Clark, H. S.
- Makes Plaster of Paris Core Dryer — April 15, 94

Coyle, J. C.
- Break Scrap For Foundry in a Special Pit — Nov. 15, 69

Crawford, H. V.
- Hot Iron Obtained by Economical Cupola Operation — April 1, 116

Crosby, V. A. and Wysong, R. D.
- Uniform Methods of Analysis Should Govern Core Oil Specifications — Feb. 1, 121

D

Delport, Vincent
- British Foundrymen Study Industry's Technical Problems — July 15, 71
- European Foundrymen Gather at Belgian Convention — Aug. 1, 95
- French Foundry Casts Silicon-Aluminum Alloy — March 1, 121

Dietert, H. W.
- Pouring Speed May Be Adjusted with Precision — March 1, 129

Denison, A. C.
- Standardized Cost Systems Must Be Applied Uniformly — Oct. 1, 88

Donnelly, William
- Steel Foundrymen Should Study Pattern Costs — Aug. 15, 56

Dwyer, Pat
- Aims at Perfection in Malleable Castings — Dec. 1, 66
- Alabama Makes 65 Per Cent of Nation's Cast Iron Pipe — March 1, 98
- Bill Again Brings Up the Keel Question — July 1, 117
- Bill Comments on High Hats and Spark Arresters — May 1, 204
- Bill Diagnoses Some Shrinkage Cavities — April 1, 140
- Bill Discovers Many Classes of Shot — Nov. 1, 110
- Bill Discusses the Number of Foremen Required — Feb. 1, 123
- Bill Does Not Favor Welding a Bell — April 15, 95
- Bill Explains Sweeping of a Gear Blank — Sept. 15, 75
- Bill Favors Greater Number of Tuyeres — Dec. 15, 71
- Bill Gets a Hot Tip on Keel Molding — May 15, 82
- Bill Goes on a Trip Among the Gates — Dec. 1, 93
- Bill Hears of Steel Casting for Diver — June 15, 76
- Bill Makes a Plea for Industrial Peace — Jan. 15, 97
- Bill Offers Advice On Permanent Molds — Jan. 1, 114
- Bill Prescribes for a Cracked Bolster — Oct. 15, 87
- Bill Reads a Story about a Foundry — March 15, 102
- Bill Says Hand Ladles Are Hard To Dry — June 1, 169
- Bill Talks Weapons And Small Cupolas — Oct. 1, 113
- Bill Tells How Barrow Wheels Are Molded — Nov. 15, 70
- Bill Tells of Molding a Smoke Stack—I — July 15, 79
- Bill Tells of Molding a Smokestack—II — April 1, 114
- Bill Tells of Molding a Smokestack—III — Aug. 1, 75
- Bill Tells of Molding a Smokestack—IV — Sept. 1, 121
- Bill Tells Why Steel Wheels Crack — March 1, 131
- Bill Thinks of Going on the War Path — Feb. 15, 100
- Cast Pipe with Universal Joints — Nov. 15, 42
- Cast Pipe Centrifugally in Sand Molds — July 1, 98
- Cast Pipe in Eighteen Foot Lengths — Aug. 1, 104
- Casts Pipe Vertically in Sand — Sept. 1, 104
- Imagination Builds Business in Cast Iron Toys — March 15, 74
- Machines Spin 10 Miles of Cast Pipe Daily — May 15, 75
- Makes Textile Machinery Castings in a New Foundry — Jan. 1, 88
- Pipe Is Held to Close Limits — April 1, 120
- Pressure Pipe Is Cast Horizontally—I — Sept. 15, 48
- Pressure Pipe Is Cast Horizontally—II — Oct. 1, 99
- Southern Foundry Concentrates on Special Pipe Shapes — Oct. 15, 54

E

Evans, Harry P.
- Heat Treatment Determines Properties of Manganese Steel — Sept. 1, 102

F

Forbes, P. D.
- Modern Foundry Flourishes in the Orient — March 15, 91
- Numerous Patterns Are Required For Pump Castings — Jan. 1, 117
- Recalls Pioneer Days on the Pacific Coast — Nov. 15, 46

Freeland, Willard E.
- How Can Brass Foundries Stabilize Business? — April 1, 109

Freund, C. J.
- Let Apprentices Sell Apprenticeship—Part I — Feb. 15, 84
- Let Apprentices Sell Apprenticeship—Part II — March 1, 111

G

Gale, C. H.
- Where East and West Meet on a Common Footing — Oct. 15, 68

Gillett, H. W.
- Will Foster Industrial Research — Feb. 1, 129

Gingerich, E. M., Stay, T. D., and Rowe, H. J.
- Strong Aluminum Castings Are Obtained by Improved Foundry Practice—Part I — Dec. 1, 72
- Strong Aluminum Castings Are Obtained by Improved Foundry Practice—Part II — Dec. 15, 52

Goodale, P. L.
- Shows Penetration of Steel Cast Against Sand — Aug. 1, 93

Graham, W. F. and Meisse, L. A.
- Defects in Cast Brass Are Revealed by Deep Etching — July 1, 92

Guilbert, Harry
- Mandatory Goggle Rule Protects Eyes of Workers — Oct. 1, 122

H

Hermanns, Hubert
- German Founders Discuss Pig Iron Containing Aluminum — Oct. 15, 69

Hindle, Norman F.
- Lamp Post Design Determines Molding Methods — Dec. 1, 82
- Malleable Foundry Makes Wagon Skeins — May 1, 214
- Patternmaking Requires Skilled Craftsmen — April 1, 104
- Steel Foundry Specializes in Railroad Castings — June 15, 42
- Steel Foundry Specializes in Railroad Castings — July 1, 113

Hyde, Harvey W.
- Cupola Malleable Is Cast in Permanent Molds—Part I — March 1, 104
- Cupola Malleable is Cast in Permanent Molds—Part II — March 15, 109

J

Johnson, Thomas
- Runners Are Staggered for Clean Castings — Dec. 15, 76

Judge, J. D.
- Co-operation Brings Better Pattern Equipment — Jan. 15, 75

K

	Month	Page
Keator, E. O.		
Believe It or Not—The Foundry Industry Needs The Technician	Oct. 1	109
Kerlin, W. W.		
Screen Analysis Determines Distribution of Sand Grains	Jan 15	78
Knight, L. B.		
Snythetic Molding Sand Requires a Proper Base	Dec. 1	80
Krueger, H., and R. S. MacPherran		
Long Heating Periods at High Temperatures Affect Gray Cast Iron	Oct. 1	103

L

Lamoureux, Ivan		
Fundamentals of Foundry Practice—Part I	Jan. 1	94
Fundamentals of Foundry Practice—Part II	Jan. 15	81
Fundamentals of Foundry Practice—Part III	Feb. 1	105
Fundamentals of Foundry Practice—Part IV	Feb. 15	97
Fundamentals of Foundry Practice—Part V	March 1	134
Fundamentals of Foundry Practice—Part VI	March 15	93
Fundamentals of Foundry Practice—Part VII	April 1	131
Fundamentals of Foundry Practice—Par VIII	April 15	80
Fundamentals of Foundry Practice—Part IX	May 1	220
Fundamentals of Foundry Practice—Part X	May 15	65
Fundamentals of Foundry Practice—Part XI	June 1	163
Fundamentals of Foundry Practice—Part XII	June 15	50
Fundamentals of Foundry Practice—Part XIII	July 1	109
Fundamentals of Foundry Practice—Part XIV	July 15	82
Fundamentals of Foundry Practice—Part XV	Aug. 1	90
Fundamentals of Foundry Practice—Part XVI	Aug. 15	61
Fundamentals of Foundry Practice—Part XVII	Sept. 1	112
Fundamentals of Foundry Practice—Part XVIII	Sept. 15	70
Fundamentals of Foundry Practice—Part IX	Oct. 1	94
Fundamentals of Foundry Practice—Part XX	Oct. 15	65
Fundamentals of Foundry Practice—Part XXI	Nov. 1	101
Fundamentals of Foundry Practice—Part XXII	Nov. 15	55
Fundamentals of Foundry Practice—Part XXIII	Dec. 1	96
Fundamentals of Foundry Practice—Part XXIV	Dec. 15	67
Lynn, Clifford E.		
Control System Is Applied Easily to Foundries	Aug. 15	71

Mac

MacPherran, R. S.		
High Grade Cast Iron Produced By Large Steel Scrap Additions	Jan. 1	112
MacPherran, R. S. and H. Krueger		
Long Heating Periods at High Temperatures Affect Gray Cast Iron	Oct. 1	103

Mc

McGinnis, Joseph		
Aluminum Pan Needs Many Runners	May 15	60

M

Marius, Henri		
Railroad Bronzes Are Cast in Permanent Molds	Jan. 1	104
Masters, Robert E.		
Locomotive Cylinders Have Changed	Feb. 1	111
Mayne, B. R.		
Apply Continuous Process to Malleable Practice	May 15	61
Meier, J. B.		
Brass Castings Offer Economical Engineering Materials	Jan. 15	93
Meisse, L. A. and A. Graham, W. F.		
Defects in Cast Brass Are Revealed by Deep Etching	July 1	92
Melmoth, Frederick A.		
Complexities Confront the Steel Foundry Industry	July 15	52
Moore, R. R.		
Nonferrous Materials of Construction in Aircraft Engines	Nov. 15	61
Murphy, James A.		
Reveals a Way To Light the Foundry Floor	April 1	145

N

Nealey, J. B.		
Aluminum Kitchenware Is Cast in Permanent Molds	Oct. 1	86
Continuous Oven Reduces Core Losses	Aug. 15	58

P

Palmer, R. H.		
Long Beds Warp in the Mold	Feb. 1	126
Paulson, W. E.		
Overcome Alloy Ingot Trouble	Aug. 15	60
Paulus, A.		
Correct Lighting Increases Efficiency in the Foundry	Oct. 1	81
Pearce, J. G.		
Correlation of Mechanical Tests Involves Many Difficulties—Part I	Oct. 15	62
Correlation of Mechanical Tests Involves Many Difficulties—Part II	Nov. 1	93
Pendleton, J. C.		
Oil Sand Cores Used in Casting Alloy Steel Chains	June 1	159
Pishek, Fr.		
Surveys Foundry Industry in Czechoslovakia	Sept. 1	98
Pletcher, Fred B.		
Produces Cores With Speed and Accuracy	July 1	88

R

Randlett, F. M.		
Pipe Requires Rigid Inspection	Aug. 15	72
Reading, A. K.		
A Foundry Budget Directs Operating and Sales Efforts	Nov. 15	53
Rogers, Granville P.		
Points Out Society's Value	April 15	79
Rowe, Francis W.		
Bronze Gear Blanks Poured in Spinning Steel Molds	Sept. 15	59
Rowe, H. J., Stay, T. D., and Gingerich, E. M.		
Strong Aluminum Castings Are Obtained by Improved Foundry Practice—Part I	Dec. 1	72
Strong Aluminum Castings Are Obtained by Improved Foundry Practice—Part II	Dec. 15	52
Runge, E. T.		
Four Major Divisions Decide Foundry Costs	June 15	73

S

Schaller, Gilbert S.		
Melts Iron and Steel in Electric Furnace	Aug. 15	48
Schubert, Carl E.		
Reduces Costs by Controlling Oil Sand Mixtures	April 1	125
Schwartz, H. A.		
Examines Foundry Figures Graphically	Aug. 15	44
Over Annealed Steel Is Recognized Through X-Ray Spectrometry	May 1	197
Seyler, George A.		
How We Secured Safety	Jan. 15	92
Shore, A. S.		
Hardening Gray Iron May Have Industrial Application	Dec. 15	74
Simonds, Herbert R.		
Cleaning Costs, Steel Shop Reduces	April 15	64
Control of Materials Features Die Casting Plant	June 15	69
Costs, Steel Shop Reduces Cleaning	April 15	64
Large Aluminum Sphere Taxes Foundry Ingenuity	Feb. 1	103
Steel Shop Reduces Cleaning Costs	April 15	64
Smith, J. Kent		
Molybdenum Improves Gray Iron	June 15	54
Stay, T. D., Gingerich, E. M. and Rowe, H. J.		
Strong Aluminum Castings Are Obtained by Improved Foundry Practice—Part I	Dec. 1	72
Strong Aluminum Castings Are Obtained by Improved Foundry Practice—Part II	Dec. 15	52

T

Thews, Edmund R.		
Light Alloy Pistons Are Cast in Permanent Molds	Nov. 15	67
Truitt, S. M.		
Pacific Foundries Adopt Standards	June 1	173
Turner, N. L.		
Melts Gray Iron for Stove Plate in the Electric Furnace	Aug. 1	88
Turner, Thomas H.		
British Foundrymen Cast Variety of Alloys—Part V	Jan. 1	121
British Foundrymen Cast Variety of Alloys—Part VI	Jan. 15	90

U

Utley, S. W.		
Where Are the Young Foundrymen?	Sept. 15	73

V

Vickers, Charles		
American Brass Foundry Practice—Part V	Feb. 15	73
American Brass Foundry Practice—Part VI	March 15	88
American Brass Foundry Practice—Part VII	April 15	69
Brass Melting Furnaces Are Fired With Two Oil Burners	Nov. 1	92
Problems in Nonferrous Founding	Jan. 1	111
Problems in Nonferrous Founding	Jan. 15	80
Problems in Nonferrous Founding	Feb. 1	118
Problems in Nonferrous Founding	Feb. 15	93
Problems in Nonferrous Founding	March 1	126
Problems in Nonferrous Founding	March 15	101
Problems in Nonferrous Founding	April 1	130

	Month	Page
Problems in Nonferrous Founding	April 15	92
Problems in Nonferrous Founding	May 1	203
Problems in Nonferrous Founding	May 15	74
Problems in Nonferrous Founding	June 1	158
Problems in Nonferrous Founding	June 15	69
Problems in Nonferrous Founding	July 1	108
Problems in Nonferrous Founding	July 15	78
Problems in Nonferrous Founding	Aug. 1	103
Problems in Nonferrous Founding	Aug. 15	67
Problems in Nonferrous Founding	Sept. 1	120
Problems in Nonferrous Founding	Sept. 15	60
Problems in Nonferrous Founding	Oct. 1	93
Problems in Nonferrous Founding	Oct. 15	82
Problems in Nonferrous Founding	Nov. 1	109
Problems in Nonferrous Founding	Nov. 15	62
Problems in Nonferrous Founding	Dec. 1	90
Problems in Nonferrous Founding	Dec. 15	66

W

	Month	Page
Walls, Fred J.		
Briquetting Borings Reduces Gray Iron Melting Costs	July 15	68
Walton, Albert		
Men and Machines Must Fit the Needs of the Particular Shop	Oct. 15	83
Watson, Robert W.		
Cupola Pitfalls and Ways To Avoid Them	Dec. 1	85

Z

	Month	Page
Zuege, David		
Compares Properties of Various Alloy Steel Castings—Part I	Jan. 1	100
Compares Properties of Various Alloy Steel Castings—Part II	Jan. 15	71